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FIGURE 1

GGCACGAGGGTAGGCACCTTTAGCTCAGTGATGGATTTTAAGAACGATTACACCTGTCGCCTGTGGTCTGACTCCA
GGCACTCGCGTCAGGTACTTCTGCTCCAGGATAGCTTTATGAATTGCTCTGACAGCATCATCAATGGTTCCTTTC
GTGCGCTTGGCTTTATTCATGAGGCTCAGGTCGGGGAAAGACTGATGGTCCACTGTGACAGCAAGACAGGTAATG
CAAATACGGATTTTCATCTGGGTGGGTCCAGATAACAGACTGCTAGAGCCGGATAAAGAGATGGAAAACCTTTTACG
TGTTTCACAATGGAAGTCTGGTTATAGAAAGCCCTCGTTTTGAGGATGCTGGAGTGTATTCTTGTATCGCAATGA
ATAAGCAACGCCTGTAAATGAAACTGTGGACGTCACAATAAATGTGAGCAATTTCACTGTAAGCAGATCCCATG
CTCATGAGGCATTTAACACAGCTTTTACCACCTCTTGCTGCTTGCGTGCCAGTATCGTTTTGGTACTTTTGTACC
TCTATCTGACTCCATGCCCCTGCAAGTGTAACCAAGAGACAGAAAAATATGCTACACCAAAGCAATGCCCATT
CATCGATTCTCAGTCCTGGCCCCGCTAGTGATGCC TCCGCTGATGAACGGAAGGCAGGTGCAGGTAAGAGAGTGG
TGTTTTTGAACCCCTGAAGGATACTGCAGCAGGGCAGAACGGGAAAGTCAGGCTCTTCCAGCGAGGCAGTGA
TAGCTGAGGGCATCCTAAAGTCCACGAGGGGAAATCTGACTCAGATTCAGTCAATTCAGTGTCTTCTGACACAC
CTTTTGTGGCGTCCACTTAATTTGTGCCTATATTTGTATGATGTCATAATTTAATCTGTTTCATATTTAACTTTGT
GTGTGGTCTGCAAAATAAACAGCAGGACAGAAAAA

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FIGURE 2A

CGCGTGTCTACGCGGACGCACCGGCTAAGCTGCTTCTGCCGCCGCCGCCCTGGGACCTTGCGGTGAGGCTGC
GCGGGGCCGAGGCCGCCTCCGAGCGCCAGGTTTATTTCAGTCACCATGAAGCTGCTGCTGCTGCACCCGGCCTTCC
AGAGCTGCCCTCCTGCTGACCTGCTTGGCTTATGGAGAACCACCCCTGAGGCTCACGCTTCATCCCTGGGTGCAC
CAGCTATCAGCGCTGCCTCCTTCTGAGGATCTAATACATCGGTATGGCGAGGGTGACAGCCTACTCTGCAGC
AGCTGAAGGCCCTGCTCAACCACCTGGATGTGGGAGTGGGCCGGGTAAATGTCACCCAGCACGTGCAAGGACACA
GGAACCTCTCCACGTGCTTTAGTTCTGGAGACCTCTTCACTGCCCACAATTCAGCGAGCAGTCGCGGATTGGGA
GCAGCGAGCTCCAGGAGTTCTGCCCCACCATCCTCCAGCAGCTGGATTCCCGGGCCTGCACCTCGGAGAACCAGG
AAAACGAGGAGAATGAGCAGACGGAGGAGGGCGGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCCTCTGTG
TGACCGTCACTCCTCTGCTCCCTCCTGGGGGCCAGCGTGGTGGCCTTCATGAAGAAGACCTTTTACAAGAGGC
TGCTGCTCTACTTCATAGCTCTGGCGATTGGAACCTCTACTCCAACGCCCTCTTCCAGCTCATCCCGGAGGCAT
TTGGTTTCAACCTCTGGAAGATTATTATGTCTCCAAGTCTGCAGTGGTGTGTTGGGGGCTTTTATCTTTCTTTT
TCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATCATGGACACAGCCATTATGCCTCTG
AGTCGCTTCCCTCCAAGAAGGACCAGGAGGAGGGGTGATGGAGAAGCTGCAGAACGGGGACCTGGACCACATGA
TTCTTCAGCACTGCAGCAGTGAGCTGGACGGCAAGGCGCCCATGGTGGACGAGAAGGTCATTGTGGGCTCGCTCT
CTGTGCAGGACCTGCAGGCTTCCCAGAGTGCTTGCTACTGGCTGAAAGGTGTCCGCTACTCTGATATCGGCACTC
TGGCCTGGATGATCACTCTGAGCGACGGCCTCCACAATTTTCATCGATGGCCTGGCCATCGGTGCTTCTTCACTG
TGTCAGTTTTCCAAGGCATCAGCACCTCGGTGGCCATCCTCTGTGAGGAGTTCCACATGAGCTAGGAGACTTTG
TCATCCTGCTCAACGCTGGGATGAGCATCCAACAAGCTCTCTTCTTCAACTTCTTTCTGCTGCTGCTGCTACC
TGGGTCTGGCCTTTGGCATCCTGGCCGGCAGCCACTTCTCTGCCAAGTGGATTTTTCGCTAGCTGGAGGAATGT
TCTTGATATATTCTCTGGCTGATATGTTCCCTGAGATGAATGAGGTCTGTCAAGAGGATGAAAGGAAGGGCAGCA
TCTTGATTCCATTTATCATCCAGAACCTGGGCCTCCTGACTGGATTACCATCATGGTGGTCCCTACCATGTATT
CAGGACAGATCCAGATTGGGTAGGGCTCTGCCAAGAGCCTGTGGGACTGGAAGTCGGGCCCTGGGTGCCCGATC
GCCAGCCCGAGGACTTACCATCCACAATGCACCACGGAAGAGGCCGTTCTATGAAAACTGACACAGACTGTATT
CCTGCATTCAAATGTCAGCCGTTTGTAATAATGCTGTATCTTAGGAATAAGCTGCCCTGGTAACCACTCTAGCT
AGTGCCCTCTTGCCCTCTCCTCACCTCCTTTTCTCTCAGTGACTCTGGAACCTGAATGCAGCTTACAAGACAAGCC
TGACTTTTTTCTCTGATTACCTTGGCCTCCTCTTGGAACCACTGCTGAAAGGTTTGAATCCTTTACCCAACAAT
GCAAAAATAGAGCCAATGGTTATAACTTGGCTAGAAATATCAAGAGTTGAATCCATAGTGTGGGGCCCATGACTC
TAGCTGGGCACCTTGGACCTCCAGCTGGCCAATAGAAGAGACAGGAGACAGGAAGCCTTCCCATTTTTTCAAAGT
CTGTTTAATTGCCTATTACTTCTCTCAAAGAGAACCTGAAGTCAGAACACATGAGCAGGGTGAGAGGTGAGGCAA
GGTTTCATCCTGAATGGGAGAGGAAGTCGAACCACTGCTGTGTGTCTTGTGTCAGGATGCTCACTTGTCTACTGAG
ATGCTGGATATTGATTTTGTAAACAGCACCTGGTGTTCACGGCTGTCCGAGTGAGCTAACGTGGCGGTGTGGCTG
CCTGGACCTCCTCTTTCAGGTTAACGCTGACAGAAATGGAGGCTCAGGCTGTCTGCAAGAAAAACAGTTGGTTTGGC
TGTGATTTTGACCTCCTCTTCCCCACTGCCATCTTCTAAGAGACTTTGTAGCTGCCTCCTAGAAGCACATTCTGA
GCACATTTGAGACCTCTGTGTTAGAGGGGAGACTGCACAACTATCCTCCCCAGGTTGAGACGTCTGCAGAGTG
GCAAGCTGACTTGTAGAAATGGGGTGCCATTTATGCTCTACTTAGACAAGGGTAATCAGAAATGGAATCAGTGCA
GGCAAAATTTAGGATTTGCCGCTTCCATAAATCAAAGCATGACTAATAGGGGGTCTCTGAAATGTAAGGGCACAA
ACTTCACTTAGGGCATCGCAGATGTTTGCAGAAATGGTTGGCCTAATGATTATGCTACAGATGGGTTTTAAATGAC
CCGCTAGGTTACTGCTTCTTGCAAAAAAGTCGAATCCTGCATTGAATTGAATATGAATTTCTCTAACTCTCT
CCAGAAATGGATGGAGATAACTTGTCTTTAAAACGTGAGGCCAGCCTTAGCCACTGTGGAGCCCTTGCCCTCGA
GCTCTGGCTTCAAGGGGAGCTCTTCTCCAGGTTCACTAGGTGAATTGATTTATTATTATCATATTGATAATGTGA
GATTCTTTAGCCACTTTGGGGAGCCTGTCTCTCCAGAAGCCTTTCTTAGTGGTGGCCACAGTTGGAGCCCAGGGG
CCATGTTTGCAAACTGATTCATGTGCATGGCTGACAGGAGTACTGGTTCACCTACCAATGCCTGAGCTTTTCTCTT
ACATAGAAAACTGTCCACTCTCAGTAATCAACAAGCAGCATCCGTTTTGTTTTCTCTTCTTGGGAGACATCTGTC
AAACCAGGAATATTCTTGAAAAGAAGCTGAGCAGGAAAACTGCTGGTGATACTTTTTTTAAGTTTTGTTTTAT
CTTGCCGTGTTGGCTTCAATACATTTGAGAATACGCTGAAGAGGGAAAATTTCAAGTATGGAGATTCTAGATTAA
TATCAGGACTGATTTCTGGTGGGATTATGGTCCAGTTTTACCAAGAACCAATTCCTTGAATGTTGGAATCTAA
CTTTTTATATTGTCATTATTATTGTTGTTTTTAAACGGTCTTTTGTCTTTTCTGTTTTATTTTTCTCAAGCTGCT
TTCAGGAGCTAGCAGAAAATAACTCAAAGTTGAAGACTCTGGAAGATTTTGCTTTAACCTAACTCGCATTGATGT

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FIGURE 2B

ATTAAATTTATAATTTTAGCATTCCCAATAGATCCTATCATTTCCTTAAACATAATACCCTTTGTCTTGAGTAGA
ATACTAAGTTAGAGTTAGTGGATTTCTAGTTTAGGAGAGGAGCTCAAAACTATAATCTTTAACAAATTGAAAAAT
GAAATAGGGTGTTTTCCCTTTTTGTGCACACCTATATTACCTTAAGAAATTTTCCTTCCATAGACAGCTGCCTCAA
AGGGAATCCCTCTTTAAACCGTAGTTGGCGCAGAGGTCAGTCCTAGTCGGAGCTTAGGAGGGGCGGAGACGCTCA
CATCGTCTGACTTGAGTCGCCACTGATTGTGGCAACAGCTTTGCCTCATGAGTCAAAAATTGGCAATTTCTTTTG
ATTTTAGTTGTTGAATTTGCTGTTTCAAGCATTTGTACATATTAGAAGTCTAAGGAGTAGCAAGTCAGTGGGAG
GACTTTTTCACCCCTGGCATTAGCAGCTTCGACCTCATTTTCCAGATGCACCAGCTCCTATTAATAAGTTAGCAA
GGAAAGTGATGTCACGTGCAGGAACAGTGAGGCAGGGACAGGGGTTCTGCTCCTTCTCACTTCACCACCGGCAC
ACAGCTTGCCCTGTCTTTGCCCCAAAGGTATTTTGTGTCTAGTGTCAAATTGGAGCTATTCTTCACTGGTCCT
TAACCTTGGGTTTTAAAAAGAAGGCTTCTCTGTTTGGGTAGCGTAAGAGCTGAGTATAGTAAGTCCTCTTCCAAA
GAGATGGCAATATGCTGGGCATCTACTTTAAAACAAAGTTGTCTGATTTTTGCAAGAGAGGTTAGGATTTTATTG
TTCTTATTTCCCTTTACAGTTCTGCAGTTCCATCACAGTATTTTTTAAATAACTCAGGTGTATGAGCAGAAATT
AGAAAAGAAAATTAACCTTATGTGGACTGTAAATGTTTATTTGTAAGATTCTATAAATAAAGCTATATTCTGT

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FIGURE 3

RVYADAPAKLLLPPPAAWDLAVRLRGAEAAASERQVYSVTMKLLLLHPAFQSCLLLTLLGLWRTTPEAHASSLGAP
AISAASFLQDLIHRYGEGDSLTLQQLKALLNHLDVGVGRGNVTQHVGHRNLSTCFSSGDLFTAHFSEQSRIGS
SELQEFCTILQQDSRACTSENQENEENEQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKKTfYKRL
LLYFIALAIGTLYSNALFQLIPEAFGFNPLEDYYVSKSAVVFGGFYLFFFTEKILKILLKQKNEHHHGHSHYASE
SLPSKKDQEEGVMEKLQNGDLDHMIPQHCSSELDGKAPMVDEKVIVGSLSVQDLQASQSACYWLKGVRYSDIGTL
AWMITLSDGLHNFIDGLAIGASFTVSVFQGISTSVAILCEEFPHELGDVILLNAGMSIQQALFFNFLSACCCYL
GLAFGILAGSHFSANWIFALAGGMFLYISLADMFP EMNEVCQEDERKGSILIPFI IQNLGLLTGFTIMVVLTMYSG
GQIQIG

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FIGURE 4

GGCACGAGGGATGCAAGGAGATGAGACAGTTAGATTACTTCCTCTTTTCTAATCTGAGAGGTTTCATGTTGAAG
AAAATCAGTGTTGGGGTTGCAGGAGACCTAAACACAGTCACCATGAAGCTGGGCTGTGTCTCATGGCCTGGGCC
CTCTACCTTTCCCTTGGTGTGCTCTGGGTGGCCAGATGCTACTGGCTGCCAGTTTTGAGACGCTGCAGTGTGAG
GGACCTGTCTGCACTGAGGAGAGCAGCTGCCACACGGAGGATGACTTGACTGATGCAAGGGAAGCTGGCTTCCAG
GTCAAGGCCTACACTTTCAGTGAACCTTCCACCTGATTGTGTCCTATGACTGGCTGATCCTCCAAGGTCCAGCC
AAGCCAGTTTTTTGAAGGGGACCTGCTGGTTCTGCGCTGCCAGGCCTGGCAAGACTGGCCACTGACTCAGGTGACC
TTCTACCGAGATGGCTCAGCTCTGGGTCCCCCGGGCCTAACAGGGAATTCTCCATCACCGTGGTACAAAAGGCA
GACAGCGGGCACTACCACTGCAGTGGCATCTTCCAGAGCCCTGGTCCCTGGGATCCCAGAAACAGCATCTGTTGTG
GCTATCACAGTCCAAGAACTGTTTCCAGCGCCAATTCTCAGAGCTGTACCCTCAGCTGAACCCCAAGCAGGAAGC
CCCATGACCCTGAGTTGTCTAGACAAAGTTGCCCCCTGCAGAGGTCAGCTGCCCCGCTCCTCTTCTCCTTCTACAAG
GATGGAAGGATAGTGCAAAGCAGGGGGCTCTCCTCAGAATTCCAGATCCCCACAGCTTCAGAAGATCACTCCGGG
TCATACTGGTGTGAGGCAGCCACTGAGGACAACCAAGTTTGGAACAGAGCCCCCAGCTAGAGATCAGAGTGCAG
GGTGCTTCCAGCTCTGCTGCACCTCCACATTGAATCCAGCTCCTCAGAAATCAGCTGCTCCAGGAACCTGCTCCT
GAGGAGGCCCTGGGCCTCTGCCTCCGCCGCCAACCCCATCTTCTGAGGATCCAGGCTTTTCTTCTCCTCTGGGG
ATGCCAGATCCTCATCTGTATCACCAGATGGGCCTTCTTCTCAAACACATGCAGGATGTGAGAGTCTCCTCGGT
CACCTGCTCATGGAGTTGAGGGAATTATCTGGCCACCAGAAGCCTGGGACCACAAAGGCTACTGCTGAATAGAAG
TAAACAGTTCATCCATGATCTCACTTAACCAACCCCAATAAATCTGATTCTTTATTTTCTTCTCCTGTCTGCACA
TATGCATAAGTACTTTTACAAGTTGTCCAGTGTTTTGTTAGAATAATGTAGTTAGGTGAGTGTAATAAATTTA
TATAAAGTGAGAATTAGAGTTTAGCTATAATTGTGTATTCTCTCTTAACACAACAGAATTCTGCTGTCTAGATCA
GGAATTTCTATCTGTTATATCGACCAGAATGTTGTGATTTAAAGAGAACTAATGGAAGTGGATTGAATACAGCAG
TCTCAACTGGGGGCAATTTTGCCCCCAGAGGACATTGGGCAATGTTTGAGACATTTTGGTCATTATACTTGGG
GGGTTGGGGGATGGTGGGATGTGTGTGCTACTGGCATCCAGTAAATAGAAGCCAGGGGTGCCGCTAAACATCCTA
TAATGCACAGGGCAGTACCCCAACGAAAAATAATCTGGCCCAAAATGTCAGTTGTACTGAGTTTGAGAAACCC
CAGCCTAATGAAACCCTAGGTGTTGGGCTCTGGAATGGGACTTGTCCCTTCTAATTATTATCTCTTTCCAGCCT
CATTCAGCTATTCTTACTGACATAACAGTCTTTAGCTGGTGCTATGGTCTGTTCTTTAGTTCTAGTTTGTATCCC
CTCAAAAGCCATTATGTTGAAATCCTAATCCCCAAGGTGATGGCATTAAGAAGTGGGCCTTTGGGAAGTGATTAG
ATCAGGAGTGCAGAGCCCTCATGATTAGGATTAGTGCCTTATTTAAAAAGGCCCCAGAGAGCTAACTCACCCCTT
CCACCATATGAGGACGTGGCAAGAAGATGACATGTATGAGAACCAAAAAACAGCTGTCGCCAAACACCGACTCTG
TCGTTGCCTTGATCTTGAACCTCCAGCCTCCAGAACTATGAGAAATAAAATTCTGTTGTTTGTAAAAA
AAAAA

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FIGURE 5

MKLGCVLMAWALYLSLGV LWVAQM LLAASFETLQCEGPVCTEESSCHTEDDLTDAREAGFQVKAYTFSEPFHLIV
SYDWLILQGPAKPVFEGDLLVLRCAWQDWPLTQVTFYRDGSALGPPGPNREFSITVVQKADSGHYHCSGIFQSP
GPGIPETASVVAITVQELFPAPILRAVPSAEPQAGSPMTLSCQTKLPLQRSAARLLFSFYKDGRIVQSRGLSSEF
QIPTASEDHSGSYWCEATEDNQVWKQSPQLEIRVQGASSAAPTILNPAPQKSAAPGTAPEEAPGPLPPPPTPS
SEDPGFSSPLGMPDPHLYHQMGLLLKHMQDVRVLLGHLLMELRELSGHQKPGTTKATAE

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FIGURE 6

TCCTGTCTCAGGCAGGCCCTGCGCCTCCTATGCGGAGATGCTACTGCCACTGCTGCTGTCCTCGCTGCTGGGCGG
GTCCCAGGCTATGGATGGGAGATTCTGGATACGAGTGCAGGAGTCAGTGATGGTGCCGGAGGGCCTGTGCATCTC
TGTGCCCTGCTCTTTCTCCTACCCCCGACAAGACTGGACAGGGTCTACCCCAGCTTATGGCTACTGGTTCAAAGC
AGTGACTGAGACAACCAAGGGTGCTCCTGTGGCCACAAACCACCAGAGTCGAGAGGTGGAAATGAGCACCCGGGG
CCGATTCCAGCTCACTGGGGATCCCGCCAAGGGGAAGTCTCCTTGGTGATCAGAGACGCGCAGATGCAGGATGA
GTCACAGTACTTCTTTTCGGGTGGAGAGAGGAAGCTATGTGAGATATAATTCATGAACGATGGGTCTTTCTAAA
AGTAACAGCCCTGACTCAGAAGCCTGATGTCTACATCCCCGAGACCCTGGAGCCCGGGCAGCCGGTGACGGTCAT
CTGTGTGTTTAACTGGGCCTTTGAGGAATGTCCACCCCCTTCTTTCTCCTGGACGGGGGCTGCCCTCTCCTCCCA
AGGAACCAAACCAACGACCTCCCACTTCTCAGTGCTCAGCTTCACGCCCAGACCCAGGACCACAACACCGACCT
CACCTGCCATGTGGACTTCTCCAGAAAGGGTGTGAGCGTACAGAGGACCGTCCGACTCCGTGTGGCCTATGCCCC
CAGAGACCTTGTTATCAGCATTTACGTGACAACACGCCAGCCCTGGAGCCCCAGCCCCAGGGAAATGTCCATA
CCTGGAAGCCCAAAAAGGCCAGTTCTTGC GGCTCCTCTGTGCTGCTGACAGCCAGCCCCCTGCCACACTGAGCTG
GGTCTTGCAAGACAGAGTCTCTCCTCGTCCCATCCTGGGGCCCTAGACCCCTGGGGCTGGAGCTGCCCCGGGT
GAAGGCTGGGGATTGAGGGCGCTACACCTGCCGAGCGGAGAACAGGCTTGGCTCCAGCAGCGAGCCCTGGACCT
CTCTGTGCAGTATCCTCCAGAGAACCTGAGAGTGAATGGTTTCCCAAGCAAACAGGACAGTCTTGAAAACCTTGG
GAACGGCACGTCTCTCCAGTACTGGAGGGCCAAAGCCTGTGCTGGTCTGTGTACACACAGCAGCCCCCAGC
CAGGCTGAGCTGGACCCAGAGGGGACAGGTTCTGAGCCCCCTCCAGCCCTCAGACCCCGGGGTCTGGAGCTGCC
TCGGGTTCAAGTGGAGCACGAAGGAGAGTTACCTGCCACGCTCGGCACCCACTGGGCTCCAGCACGTCTCTCT
CAGCCTCTCCGTGCACTACTCCCCGAAGCTGCTGGGGCCCCCTCCTGCTCCTGGGAGGCTGAGGGTCTGCACTGCAG
CTGCTCCTCCCAGGCCAGCCCGGCCCCCTCTCTGCGCTGGTGGCTTGGGGAGGAGCTGCTGGAGGGGAACAGCAG
CCAGGACTCCTTCGAGGTACCCCCAGCTCAGCCGGGCCCTGGGGCAACAGCTCCCTGAGCCTCCATGGAGGGCT
CAGCTCTGGCCTCAGGCTCCGCTGTGAGGCCTGGAACGTCCATGGGGCCCAGAGTGGATCCATCCTGCAGCTGCC
AGATAAGAAGGGACTCATCTCAACGGCATTCTCCAACGGAGCGTTTCTGGGAATCGGCATCACGGCTCTTCTTTT
CCTCTGCCTGGCCCTGATCATCATGAAGATTCTACCGAAGAGACGGACTCAGACAGAAACCCCGAGGCCAGGTT
CTCCCCGGCACAGCACGATCCTGGATTACATCAATGTGGTCCCCGACGGCTGGCCCCCTGGCTCAGAAGCGGAATCA
GAAAGCCACACCAAACAGTCTCGGACCCCTCTTCACCAGGTGCTCCCTCCCCAGAATCAAAGAAGAACCAGAA
AAAGCAGTATCAGTTGCCAGTTTCCAGAACCCAAATCATCCACTCAAGCCCCAGAATCCAGGAGAGCCAAGA
GGAGCTCCATTATGCCACGCTCAACTTCCAGGCGTCAGACCCAGGCCTGAGGCCCGGATGCCCAAGGGCACCCA
GGCGGATTATGCAGAAGTCAAGTTCCAATGAGGGTCTCTTAGGCTTTAGGACTGGGACTTCGGCTAGGGAGGAAG
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FIGURE 7

MLLP LLLS LLGGSQAMDGRFWIRVQESVMVPEGLCISVPCSF SYPRQDWTGSTPAYGYWFKAVTETITKGAPVAT
NHQSREVE MSTRGRFQLTGDPKGNCSLVIRDAQM QDESYFFRVERGSYVRYNFMNDGFFLKVTALTQKPDVYI
PETLEPGQPVTVICVFNWAFEECP PPSFSWTGAALSSQGT KPTTSHFSVLSTPRPQDHNTDLTCHVDFSRKGVS
VQRTVRLRVAYAPRDLVISISRDNTPALEPQPQGNVPYLEAQKGQFLRLLCAADSQPPATLSWVLQNRVLSSSHF
WGPRPLGLELPGVKAGDSGRYTCRAENRLGSQQRALDLSVQYPPENLRVMVSQANRTVLENLNGTSLPVLEGQS
LCLVCVTHSSPPARLSWTQRGQVLSPSQPSDPGVLELPRVQVEHEGEFTCHARHPLGSQHVSLSLSVHYSKLLG
PSCSWEAEG LHCSCSSQASPAPSLRWLGEELLEGNSSQDSFEVTPSSAGPWANSSLSLHGGLSSGLRLRCEAWN
VHGAQSGSILQLPDKKGLISTAFSNGAFLGIGITAL LFLCLALIIMKILPKRRTQTETPRPRFSRHSTILDYINV
VPTAGPLAQKR NQKATPNSPRTPLPPGAPSPESKKNQKQYQLPSFPEPKSSTQAPESQESQEELHYATLNFPGV
RPRPEARMPKGTQADYAEVKFQ

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FIGURE 8

GACAGTGGAGGGCAGTGGAGAGGACCGCGCTGTCTGTCTCACCAAGAGCTGGAGACACCATCTCCACCGAGA
GTCATGGGCCCCATTGGCCCTGCACCTCCTCGTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGG
AAGGCTGAACGCAGCCAAGACCCCTTCGAGAAATGCATGCAGGATCCTGACTATGAGCAGCTGCTCAAGGTGGTG
ACCTGGGGGCTCAATCGGACCCTGAAGCCCCAGAGGGTGATTGTGGTTGGCGCTGGTGTGGCCGGGCTGGTGGCC
GCCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGGGGGCCGCATCTTC
ACCTACCGGGACCAGAACACGGGCTGGATTGGGGAGCTGGGAGCCATGCGCATGCCAGCTCTCACAGGATCCTC
CACAGCTCTGCCAGGGCCTGGGGCTCAACCTGACCAAGTTACCCAGTACGACAAGAACACGTGGACGGAGGTG
CACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCCGAGAAGCTGGGCTACGCCTTGGCTCCCCAGGAA
AAGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAACCAGGCCCTCAAAGACCTCAAGGCACTGGGCTGC
AGAAAGGCGATGAAGAAGTTTGAAAGGCACACGCTCTTGGAATATCTTCTCGGGGAGGGGAACCTGAGCCGGCCG
GCCGTGCAGCTTCTGGGAGACGTGATGTCCGAGGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGGGCC
CACAGCTGCCTCAGCGACAGACTCCAGTACAGCCGCATCGTGGGTGGCTGGGACCTGCTGCCGCGCGCGCTGCTG
AGCTCGCTGTCCGGGCTTGTGCTGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTG
CAGATCGAGACCTCTCCCCCGGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGTGCTGACGGCGAGCGGA
CCGGCGGTGAAGCGCATCACCTTCTCGCCGCGCGCTGCCCCGCCACATGCAGGAGGCGCTGCGGAGGCTGCACTAC
GTGCCGCCACCAAGGTGTTCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCA
AACACCGATCGCCCGTTCGCGCATGATTTTCTACCCGCCGCGCGAGGGCGCGCTGCTGCTGGCCTCGTACACG
TGGTCGGACGCGGCGGCAGCGTTTCGCCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACGACGTGGCG
GCATTGCACGGGCCTGTCGTGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGCGGAGGACCAGCAC
AGCCAGGGTGGCTTTGTGGTACAGCCGCCGGCGCTCTGGCAAACCGAAAAGGATGACTGGACGGTCCCTTATGGC
CGCATCTACTTTGCCGGCGAGCACACCGCTACCCGCACGGCTGGGTGGAGACGGCGGTCAAGTCGGCGCTGCGC
GCCGCATCAAGATCAACAGCCGGAAGGGGCTGCATCGGACACGGCCAGCCCCGAGGGGCACGCATCTGACATG
GAGGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCGCATGACCTGGCAAAGGAAGAAGGCAGCCACCCT
CCAGTCCAAGGCCAGTTATCTCTCCAAAACACGACCCACACGAGGACCTCGCATTAAAGTATTTTCGGAAAAA

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FIGURE 9

MAPLALHLLVLVPILLSLVASQDWKAERSQDPFEKCMQDPDYEQLLKVVVTWGLNRTLKPQRVIVVGAGVAGLVAA
KVLSDAGHKVTILEADNRIGGRIFTYRDQNTGWIGELGAMRMPSSHRI LHKLCQGLGLNLTKFTQYDKNTWTEVH
EVKLRNYVVEKVPEKLGALRPQEKGHSPEDIYQMALNQALKDLKALGCRKAMKKFERHTLLEYLLGEGNLSRPA
VQLLGDVMSLEDGFFYLSFAEALRAHSCLSDR LQYSRIVGGWDL LPRALLSSLSGLVLLNAPVVAMTQGP HDVHVQ
IETSPPARNLKVLKADVLLTASGPAVKRITFSPP LPRHMQEALRRLHYVPATKVFLSFRFPFWREEHIEGGHSN
TDRPSRMIFYPPPREGALLASYTWSDA AAFAGLSREEALRLALDDVAALHGPVVRQLWDGTGVV KRWAEDQHS
QGGFVVQPPALWQTEKDDWTVPYGRIYFAGEHTAYPHGWVETAVKSALRAAIKINSRKGPASDTASPEGHASDME
GQGHVHGVASSPSHDLAKEEGSHPPVQGQLSLQNTTHTRTSH

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FIGURE 10

GTGCAGTTGCGGCTCCAGGGCCATGGCGGAGGAGCAGGGCCGGGAACGGGACTCGGTTCCCAAGCCGTCGGTGCT
GTCCTCCACCCAGACCTGGGCGTGGGCGGCGCTGAGCGGCTGGTGTTGGACGCGGCGCTGGCGCTGCAGGCGCG
CGGGTGTAGCGTGAAGATCTGGACAGCGCACTACGACCCGGGCCACTGTTTCGCCGAGAGCCGCGAGCTACCGGT
GCGCTGTGCCGGGGACTGGCTGCCGCGAGGCCTGGGCTGGGGCGGCCGCGGCGCCGCTCTGCGCCTACGTGCG
CATGGTTTTCTGGCGCTCTACGTGCTGTTCTCGCCGACGAGGAGTTCGACGTGGTAGTGTGCGACCAGGTGTC
TGCCTGTATCCCAGTGTTTCAGGCTGGCTAGACGGCGGAAGAAGATCCTATTTTACTGTCACITTCAGATCTGCT
TCTACCAAGAGAGATTCTTTTCTTAAACGACTATACAGGGCCCCAATTGACTGGATAGAGGAATACACCACAGG
CATGGCAGACTGCATCTTAGTCAACAGCCAGTTCACAGCTGCTGTTTTTAAGGAAACATTCAAGTCCCTGTCTCA
CATAGACCCCTGATGTCTCTATCCATCTCTAAATGTCAACAGCTTTGACTCAGTTGTTCTGAAAAGCTGGATGA
CCTAGTCCCCAAGGGGAAAAAATTCCTGCTGCTCTCCATCAACAGATACGAAAGGAAGAAAAATCTGACTTTGGC
ACTGGAAGCCCTAGTACAGCTGCGTGGAAGATTGACATCCAAGATTGGGAGAGGGTTCATCTGATCGTGGCAGG
TGGTTATGACGAGAGAGTCTTGGAAGATTGGAACATTATCAGGAATTGAAGAAAATGGTCCAACAGTCCGACCT
TGGCCAGTATGTGACCTTCTTGAGGTCTTTCTCAGACAAACAGAAAATCTCCCTCCTCCACAGCTGCACGTGTGT
GCTTTACACACCAAGCAATGAGCACTTTGGCATTGTCCCTCTGGAAGCCATGTACATGCAGTGGCCAGTCATTGC
TGTTAATTCGGGTGGACCCTTGAGTCCATTGACCACAGTGTACAGGGTTTCTGTGTGAGCCTGACCCGGTGCA
CTTCTCAGAAGCAATAGAAAAGTTCATCCGTGAACCTTCCTTAAAAGCCACCATGGGCCTGGCTGGAAGAGCCAG
AGTGAAGGAAAAATTTTCCCCTGAAGCATTTACAGAACAGCTCTACCGATATGTTACCAAACCTGCTGGTATTAATC
AGATTGTTTTTAAGATCTCCATTAATGTCATTTTTATGGATTGTAGACCCAGTTTTGAAACCAAAAAAGAAACCT
AGAATCTAATGCAGAAGAGATCTTTTAAAAAATAAACTTGAGTCTTGAATGTGAGCCACTTTCCTATATACCACA
CCTCCCTGTCCACTTTTCAGAAAAACCATGTCTTTTATGCTATAATCATTCCAAATTTTGCCAGTGTAAAGTTAC
AAATGTGGTGTCAATCCATGTTTCAGCAGAGTATTTTAATTATATTTTCTCGGGATTATTGCTCTTCTGTCTATAA
ATTTTGAATGATACTGTGCCTTAATTGGTTTTTCATAGTTTAAAGTGTGTATCATTATCAAAGTTGATTAATTTGGC
TTCATAGTATAATGAGAGCAGGGCTATTGTAGTTCCAGATTCAATCCACCGAAGTGTTCAGTGTCACTGTGTTAG
GGAATTTTTGTTTGTCTGCTTTTGCCTGGATCCATAGCGAGAGTGCTCTGTATTTTTTTTAAAGATAATTTGTAT
TTTTGCACACTGAGATATAATAAAAGGTGTTTATC

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FIGURE 11

MAEEQGRERDSVPKPSVLF~~FL~~HPDLGVGGAERLVLDAAALQARGCSVKI~~WT~~AHYDPGHCFAESREL~~PV~~RCAGDWL
PRGLGWGGRGA~~AV~~CAYVRMV~~FL~~ALYV~~LF~~LADEEFDVVVCDQVSACIPV~~FRL~~ARRRKKILFYCHFPD~~LLL~~TKRDSF
LKRLYRAPIDWIEEYTTGMADCILVNSQFTA~~AV~~FKETFKSLSHIDPDVLYPSLN~~VT~~SFDSVVPEKLDDLV~~PK~~GKK
FLLLSINRYERKKNLTLALEALVQLRGRLTSQDW~~ERV~~HLIVAGGYDERVLENVEHYQELKKMVQQSDLGQYV~~TFL~~
RSFSDKQKISLLH~~SCT~~CVLYTPSNEHFGIVPLEAMYMQCPVIAVNSGGPLESIDH~~SV~~TGFLCEPD~~PV~~HFSE~~AI~~EK
FIREPSLKATMGLAGR~~AR~~VKEKFSPEAFTEQLYRYVTKLLV

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FIGURE 12

AGTGCGTGAGTTTGGTGGCGGCCGGCTGTGCAGAGACGCCATGTACCGGCTCCTGTCAGCAGTGACTGCCCGGGC
TGCCGCCCCCGGGGGCTTGGCCTCAAGCTGCGGACGACGCGGGGTCCATCAGCGCGCCGGGGCTGCCGCCTCTCGG
CCACGGCTGGGTGCGGGGGCTCGGGCTGGGGCTGGGGCTGGCGCTCGGGGTGAAGCTGGCAGGTGGGGCTGAGTGG
CGCGGCCCCCGGCGCAGTCCCCCGCGGCCCCCGACCCTGAGGCGTCCCTCTGGCCGAGCCGCCACAGGAGCAGTC
CCTCGCCCCGTGGTCTCCGCAGACCCCGGCGCCGCCCTGCTCCAGGTGCTTCGCCAGAGCCATCGAGAGCAGCCG
CGACCTGCTGCACAGGATCAAGGATGAGGTGGGCGCACCGGGCATAGTGTTGGAGTTTCTGTAGATGGAAAAGA
AGTCTGGTCAGAAAGTTTAGGTTATGCTGATGTTGAGAACCGTGATCCATGTAAACCAGAGACAGTTATGCGAAT
TGCTAGCATCAGCAAAAGTCTCACCATGGTTGCTCTTGCCAAATTGTGGGAAGCGGGGAAACTGGATCTTGATAT
TCCAGTACAACATTATGTTCCCGAATTCCCAGAAAAAGAATATGAAGGTGAAAAGGTTTCTGTGACAACAAGATT
ACTGATTTCCCATTTAAGTGGAAATTCGTCATTATGAAAAGGACATAAAAAAGGTGAAAGAAGAGAAAGCTTATAA
AGCCTTGAAGATGATGAAAGAGAATGTTGCATTTGAGCAAGAAAAAGAAGGCAAAAGTAATGAAAAGAATGATTT
TACTAAATTTAAACAGAGCAGGAGAATGAAGCCAAATGCCGGAATTCAAAACCTGGCAAGAAAAAGAATGATTT
TGAACAAGGCGAATTATATTTGAGAGAAAAGTTTGAAAATTCAATTGAATCCCTAAGATTATTTAAAAATGATCC
TTTGTCTTCAAACCTGGTAGTCAGTTTTTGTATTCAACTTTTGGCTATACCCTACTGGCAGCCATAGTAGAGAG
AGCTTCAGGATGTAAATATTTGGACTATATGCAGAAAATATTCCATGACTTGGATATGCTGACGACTGTGCAGGA
AGAAAACGAGCCAGTGATTTACAATAGAGCAAGGTAAATGAATACCTTCTGCTGTGTCTAGCTATATCGCATCTT
AACACTATTTTATTAATTAAGTCAAATTTTCTTTGTTTCCATTCCAAAATCAACCTGCCACATTTTGGGAGCT
TTTCTACATGTCTGTTTTCTCATCTGTAAAGTGAAGGAAGTAAACATGTTTATAAAGTACACTAAGACCCTTTG
ATGAAAGATAGCAATAATATTAATAATTCAAACATGAATAACTAAACCAAAATTCACCCACCATGAGCATCTGT
AATTTGCTCTTTAACCATTCTTTTTTAGGTTTTAACTAATACTTTGTTTACGTGTTATTAGTTTTTAATTGTTT
TCATACTGTTTTGAAATAATTTTATACTTATAGAAAAGTTGCAAGAGTAGTACAAAGGATTCACATATCCTCTTT
ACTCAGATTCCCTTAATGTTAGTTTACCGCATTTCATTACCTTTCTGTCTACATATGTGTTTGTCTGAACCA
TTTGGAAATAAGTTGTAGACGTGATACCCCTTTACCTATAAATATTTACATGTGTATTTTCTAAAAACAAGGACA
TTCAGGGCCGGGTGCAGTGGCTCACGCCTGTAATCCAACACTTTGGAAGGCCGAGGTGGGTGGATCACCTGAGG
TCAGGAGTTCAAGACCAGCCTGGCCAATGTGGTGAAATCAACCCTCTCTCTACTAAAAATGCAAAAATTAGCCAG
GTGTGGTGGCGGGTGCCTATAATCCCAGCCACGCGGGAGGCTGAGGCAGGAGAATCGTTGAACCCAGGAGGTGG
AGTTGCAGTAAGCCAAGATCGTGCCCCTGCACTTCAGGCTGGGCGAAAGAGTGAGACTCCATGTCAAAAAGGAT

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FIGURE 13

MYRLLSAVTARAAAPGGLASSCGRRGVHQRAGLPPLGHGWVGGGLGLGLGLALGVKLAGGLSGAAPAQSPAAPDPE
ASPLAEPPQEQLAPWSPQTPAPPCSRCFARAIESSRDLLHRIKDEVGAPGIVVGVSVDGKEVWSEGLGYADVEN
RVPCKPETVMRIASISKSLTMVALAKLWEAGKLDLDIPVQHYVPEFPEKEYEGEKVSVTTRLLISHLSGIRHYEK
DIKKVKEEKAYKALKMMKENVAFEQEKEGKSNEKNDFTKFKTEQENEAKCRNSKPGKKKNDFEQGELYLREKFEN
SIESLRLFKNDPLFFKPGSQFLYSTFGYTLLAAIVERASGCKYLDYMQKIFHDLDMLTTVQEENEPVIYNRAR

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FIGURE 14

ACCGCTGGCCCCAGGGAAAGCCGAGCGGCCACCGAGCCGGCAGAGACCCACCGAGCGGCGGCGGAGGGAGCAGCG
CCGGGGCGCACGAGGGCACC**ATG**CCCCAGACGCCCCGCTTCGACAAGCCCAAAGTAGAACTGCATGTCCACCTAG
ACGGATCCATCAAGCCTGAAACCATCTTATACTATGGCAGGAGGAGAGGGATCGCCCTCCCAGCTAACACAGCAG
AGGGGCTGCTGAACGTCATTGGCATGGACAAGCCGCTCACCTTCCAGACTTCCTGGCCAAATTTGACTACTACA
TGCCTGCTATCGCGGGCTGCCGGGAGGCTATCAAAAGGATCGCCTATGAGTTTGTAGAGATGAAGGCCAAAGAGG
GCGTGGTGTATGTGGAGGTGCGGTACAGTCCGCACCTGCTGGCCAACTCCAAAGTGGAGCCAATCCCCTGGAACC
AGGCTGAAGGGGACCTCACCCCAGACGAGGTGGTGGCCCTAGTGGGCCAGGGCCTGCAGGAGGGGGAGCGAGACT
TCGGGGTCAAGGCCCCGGTCCATCCTGTGCTGCATGCGCCACCAGCCCAACTGGTCCCCCAAGGTGGTGGAGCTGT
GTAAGAACTACCAGCAGCAGACCGTGGTAGCCATTGACCTGGCTGGAGATGAGACCATCCCAGGAAGCAGCCTCT
TGCCTGGACATGTCCAGGCCTACCAGGAGGCTGTGAAGAGCGGCATTACCGTACTGTCCACGCCGGGGAGGTGG
GCTCGGCCGAAGTAGTAAAAGAGGCTGTGGACATACTCAAGACAGAGCGGCTGGGACACGGCTACCACACCCTGG
AAGACCAGGCCCTTTATAACAGGCTGCGGCAGGAAAACATGCACTTCGAGATCTGCCCCTGGTCCAGCTACCTCA
CTGGTGCCTGGAAGCCGGACACGGAGCATGCAGTCATTGCGCTCAAAAATGACCAGGCTAACTACTCGCTCAACA
CAGATGACCCGCTCATCTTCAAGTCCACCCTGGACACTGATTACCAGATGACCAAACGGGACATGGGCTTTACTG
AAGAGGAGTTTAAAAGGCTGAACATCAATGCGGCCAAATCTAGTTTCTCCAGAAAGATGAAAAGAGGGAGCTTC
TCGACCTGCTCTATAAAGCCTATGGGATGCCACCTTCAGCCTCTGCAGGGCAGAACCTCT**TGA**AGACGCCACTCCT
CCAAGCCTTCACCCTGTGGAGTCACCCCAACTCTGTGGGGCTGAGCAACATTTTACATTTATTCCTTCCAAGAA
GACCATGATCTCAATAGTCAGTTACTGATGCTCCTGAACCCTATGTGTCCATTTCTGCACACACGTATACCTCGG
CATGGCCGCGTCACTTCTCTGATTATGTGCCCTGGCAGGGACCAGCGCCCTTGCACATGGGCATGGTTGAATCTG
AAACCCTCCTTCTGTGGCAACTTGTACTGAAAATCTGGTGTCTCAATAAAGAAGCCCATGGCTGGTGGCATGC

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FIGURE 15

MAQTPAFDKPKVELHVHLDGSIKPETILYYGRRRGIALPANTAEGLLNVIGMDKPLTLPDFLAKFDYYMPAIAGC
REAIKRIAYEFVEMKAKEGVVYVEVRYSPLLANSKVEPIPWNAEGDLTPDEVVALVGQGLQEGERDFGVKARS
ILCCMRHQPNWSPKVVELCKNYQQQTVVAIDLAGEDETIPGSSLLPGHVQAYQEAVKSGIHRTVHAGEVGSAEVLK
EAVDILKTERLGHYHTLEDQALYNRLRQENMHFEICPWSSYLTGAWKPDTEHAVIRLKNDQANYSLNTDDPLIF
KSTLDTDYQMTKRDGMFTTEEFKRLNINAAKSSFLPEDEKRELLDILLYKAYGMPPSASAGQNL

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FIGURE 16

GCGCCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGGCTCCCAGCAGCCCC
CGGCCCCGCGCTGCCCCGACTCCTGGTCTGCTCGGGGCTCTGTTCCAGGACCTGGCAATGCCAGACATCTGTG
TCCCCCTCAAAGTCATCCTGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCAAG
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACCTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC
CTACCCGTGTACTGGACTCCAGAACGGGTGGAACCTGGCACCCCTCCCTCTTGGCAGCCAGTGGGCAAGAACCTT
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCCAACCTCACCGTGGTGCTGCTCCGTGGGGAGAAGGAG
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTACAGACCACGGTGCTGGTGAGGAGAGATCACCATGGA
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGGCCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC
TACCAGCTCCAGACCTTTGTCTGCCAGCGACTCCCCACAACCTGTGACCCCCCGGGTCTTAGAGGTGGACACG
CAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCAGTCTCGGAGGCCAGGTCCACCTGGCACTGGGGGAC
CAGAGGTTGAACCCACAGTCACCTATGGCAACGACTCCTTCTCGGCAAGGCCTCAGTCAGTGTGACCGCAGAG
GACGAGGGGCACCCAGCGGCTGACGTGTGAGTAATACTGGGGAACAGAGCCAGGAGACACTGCAGACAGTGACC
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG
TGTGAGGCCACCCCTAGAGCCAAGGTGACGCTGAA TGGGGTTCAGCCAGCCACTGGGCCCCAGGGGCCAGCTC
CTGCTGAAGGCCACCCAGAGGACAACGGGCGCAGCTTCTCTGCTCTGCAACCCTGGAGGTGGCCGGCCAGCTT
ATACACAAGAACCAGACCCGGGAGCTTCGTGCTCTGTATGGCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT
CTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGCACCTACCTC
TGTCGGGCCAGGAGCACTCAAGGGGAGGTACCCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATT
GTCATCATCACTGTGGTAGCAGCCGAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACCGCCAG
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT
CCCCTGAACCTATCCCGGGACAGGGCCTCTTCTCGGCCTTCCATATTGGTGGCAGTGGTGCCACACTGAACAGA
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCTCAGTCAGA
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG
GTGGGGGAGACATAGCCCCACCATGAGGACATACTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTG
AGGCCCCACAGACTTACAGAAGAAGTGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCACACTTCCT
GACGGATGCCAGCTTGGGCACCTGCTGTCTACTGACCCCAACCCCTTGATGATATGTATTTATTCATTTGTTATTTT
ACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCAGTCCA
TGTCACATTCAAGGTCACCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCTGGCAAAAAGATCAAAT
GGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCGAGAAGGAGTGATTTTCTATCGGCACAAAAGCACTAT
ATGGACTGGTAATGGTTACAGGTTACAGAGATTACCCAGTGAGGCCTTATTCCTCCCTCCCCCAAACTGACA
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTTACAATGACACTCAGCGGTCATGCTGGAC
ATGAGTGCCAGGGAATATGCCCAAGCTATGCCTTGTCTCTTGTCTGTTTGCATTTCACTGGGAGCTTGGCACT
ATTGCAGCTCCAGTTTCTTGCAGTGATCAGGGTCCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTC
CCTCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTACCCAG
GCTGGAGTGCAAGTGGTCAATCATGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCTCCACCTCAGC
CTCCTGAGTAGCTGGGACCATAGGCTCACAAACACACCTGGCAAATTTGATTTTTTTTTTTTTTTTTCAGAGAC
GGGGTCTCGCAACATTGCCAGACTTCCTTTGTGTAGTTAATAAAGCTTTCTCAACTGCC

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FIGURE 17

MAPSSRPALPALLVLLGALFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLLPGNN
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTIVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL
LRGEKELKREPAVGEPAEVTTTTVLVRRDHHGANFSCRTELDRLPQGLELFENTSAPYQLQTFVLPAATPPQLVSPR
VLEVDTQGTIVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDGTQRLTCAVILGNQSQE
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTILNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL
EVAGQLIHKNQTRRLRVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFFLPIGESVTVTRD
LEGTYLCRARSTQGEVTVNVLSPRYEIVIIITVVAADVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTMPMKP
NTQATPP

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FIGURE 18

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG
GAAGGAACCATGGCCAACGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTTGGTTTCACCCTGAGGAACTGGTAGATTACACGAGCTGTGCTCAG
AACTGGATCTATGAATGACAGGAGGGCAGACCACATTGCTTTTCACATCCATTTCCCCTCCTTCCCATGGGCAGA
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACCTCATCATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAAATGCTTCCTCCCAGC

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FIGURE 19

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPVVA
MVWEGLVNVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNW I
YE

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FIGURE 20

TAAC TGAGCGAGGAGCAATTGATTAATAGCTCGGCGAGGGGACTCACTGACTGTTATAATAACACTACACCAGCA
ACTCCTGGCTTCCCAGCAGCCGGAACACAGACAGGAGAGAGTCACTGGCAAATAGACATTTTTCTTATTTCTTAA
AAAACAGCAACTTGTTTGCTACTTTTATTTCTGTTGATTTTTTTTTCTTGGTGTTGTTGGTGGTTGTTTTAAGT
GTGGAGGGCAAAGGAGATACCATCCCAGGCTCAGTCCAACCCCTCTCCAAAACGGCTTTTCTGACACTCCAGGT
AGCGAGGGAGTTGGGTCTCCAGGTTGTGCGAGGAGCAAATGATGACCGCCAAGGCCGTAGACAAAATCCCAGTAA
CTCTCAGTGGTTTTGTGCACCAGCTGTCTGACAACATCTACCCGGTGGAGGACCTCGCCGCCACGTCGGTGACCA
TCTTTCCCAATGCCGAAC TGGGAGGCCCTTTGACCAGATGAACGGAGTGGCCGGAGATGGCATGATCAACATTG
ACATGACTGGAGAGAAGAGGTCTGTTGGATCTCCCATATCCCAGCAGCTTTGCTCCCGTCTCTGCACCTAGAAACC
AGACCTTCACTTACATGGGCAAGTTCTCCATTGACCCTCAGTACCCTGGTGCCAGCTGCTACCCAGAAGGCATAA
TCAATATTGTGAGTGCAGGCATCTTGCAAGGGGTCACTTCCCCAGCTTCAACCACAGCCTCATCCAGCGTCACCT
CTGCC TCCCCAACCCACTGGCCACAGGACCCCTGGGTGTGTGCACCATGTCCCAGACCCAGCCTGACCTGGACC
ACCTGTACTCTCCGCCACCGCCTCCTCCTCCTTATTCTGGCTGTGCAGGAGACCTCTACCAGGACCCCTTCTGCGT
TCCTGT CAGCAGCCACCACCTCCACCTCTTCTCTCTGGCCTACCCACCACCTCCTTCCTATCCATCCCCAAGC
CAGCCACGGACCCAGGTCTCTTCCAATGATCCCAGACTATCCTGGATTCTTTCCATCTCAGTGCCAGAGAGACC
TACATGGTACAGCTGGCC CAGACCGTAAGCCCTTTCCCTGCCACTGGACACCCTGCGGGTGCCCCCTCCACTCA
CTCCACTCTCTACAATCCGTAAC TTTACCCTGGGGGGCCCCAGTGCTGGGGTGACCGGACCAGGGGCCAGTGAG
GCAGCGAGGGACCCCGGCTGCCTGGTAGCAGCTCAGCAGCAGCAGCAGCCGCCGCCGCCGCCCTATAACCCAC
ACCACCTGCCACTGCGGCCATTCTGAGGCCTCGCAAGTACCCCAACAGACCCAGCAAGACGCCGGTGCACGAGA
GGCCCTACCCGTGCCAGCAGAAGGCTGCGACCGCGGTTCTCCCGCTCTGACGAGCTGACACGGCACATCCGAA
TCCACACTGGGCATAAGCCCTTCCAGTGTGGATCTGCATGCGCAACTTCAGCCGCAGTGACCACCTCACCACCC
ATATCCGCACCCACACCGGTGAGAAGCCCTTCGCCTGTGACTACTGTGGCCGAAAGTTTGCCCGGAGTGATGAGA
GGAAGCGCCACACCAAGATCCACCTGAGACAGAAAGAGCGGAAAAGCAGTGCCCCCTCTGCATCGGTGCCAGCCC
CCTCTACAGCCTCCTGCTCTGGGGGCGTGACGCTGGGGGTACCCCTGTGCAGCAGTAACAGCAGCAGTCTTGCGG
GAGGGCCGCTCGCCCCCTTGCTCCTCTCGGACCCGGACACCTTGAGATGAGACTCAGGCTGATACACCAGCTCCCA
AAGGTCCCGGAGGGCCCTTTGTCCACTGGAGCTGCAACAACAACTACCACCCCTTTCCTGTCCCTCTCTCCCTTT
GTTGGGCAAAGGGCTTTGGTGGAGCTAGCACTGCCCCCTTTCCACCTAGAAGCAGGTTCTTCTCTAAACTTAGCC
CATTCTAGTCTCTCTTAGGTGAGTTGACTATCAACCCAAGGCAAAGGGGAGGCTCAGAAGGAGGTGGTGTGGGGA
TCCCTTGCCAAGAGGGCTGAGGTCTGACCCTGCTTTAAAGGGTTGTTTGACTAGGTTTGTCTACCCACTTCCC
CTTATTTTGACCCATCACAGGTTTTTGACCCTGGA TGT CAGAGTTGATCTAAGACGTTTTCTACAATAGGTTGGG
AGATGCTGATCCCTTCAAGTGGGGACAGCAAAAAGACAAGCAAACTGATGTGCACTTTATGGCTTGGGACTGAT
TTGGGGGACATTGTACAGTGAGTGAAGTATAGCCTTTATGCCACACTCTGTGGCCCTAAAATGGTGAATCAGAGC
ATATCTAGTTGTCTCAACCCCTGAAGCAATATGTATTATATACTCAGAGAACAGAAGTGCAATGTGATGGGAGGA
ACGTAGCAATATCTGCTCCTTTTCGAGTTGTTTGAGAAATGTAGGCTATTTTTTCAGTGATATCCACTCAGATT
TTGTGTATTTTTGATGTACCCACACTGTTCTCTAAATTCGAATCTTTGGGAAAAAATGTAAAGCATTATGATC
TCAGAGGTTAACTATTTAAGGGGGATGTACATATCTCTGAAACTAGGATGCATGCAATTGTGTTGGAAGTGTC
CTTGGTCGCCTTGTGTGATGTAGACAAATGTTACAAGGCTGCATGTAAATGGGTGCTTATTATGGAGAAAAA
ATCACTCCCTGAGTTTAGTATGGCTGTATATTTATGCCTATTAATATTTGGAATTTTTTTAGAAAGTATATTTT
TGATAGCTTTGTTTGTGACTTAAAGTGTTACCTTTGTAGTCAAATTT CAGATAAGAATGTACATAATGTTACC
GGAGCTGATTTGTTTGGTCATTAGCTCTTAATAGTTGTGAAAAAATAAATCTATTCTAACGCAAAACCACTAAT
GAAGTT CAGATATAATGGATGGTTTGTGACTATAGTGTAATAAATACTTTTCAACAAT

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FIGURE 21

MMTAKAVDKIPVTLSGFVHQLSDNIYPVEDLAATSVTIFPNAELGGPFQDMNGVAGDGMINIDMTGEKRSIDLPHY
PSSFAPVSAPRNQFTFTYMGKFSIDPQYPGASCYPEGIINIVSAGILQGVTSASTTASSSVTSASPNPLATGPLG
VCTMSQTQPDLOHLYSPPPPPPPYSGCAGDLYQDP SAFLSAATTSTSSSLAYPPPPSYSPKPKATDPGLFPMIPD
YPGFFPSQCQRDLHG TAGPDRKPFPCPLD LRVPPPLTPLSTIRNFTLGGPSAGVTGPGASGGSEGPRLPGSSSA
AAAAAAAAAYNPHHLPLRPILRPKYPNRPSKTPVHERPYPCPAEGCDRRFSRDELTRHIRIHTGHKPFQCRIC
MRNFSRSDHLTTHIRHTGEKPFACDYCGRKFA RSDERKRHTKIHLRQKERKSSAPSASVPAPSTASCSGGVQPG
GTLCSSNSSSLGGGPLAPCSSRTRTP

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FIGURE 22

CCGCAGGCGCTCGGGGTTGGAGCCAGCGACCGTCGGTAGCAGCATGGCTCTCCTCTTTCTCCTACCCCTTGTCAT
GCAGGGTGTGAGCAGGGCTGAGATGGGCACCGCGGATCTGGGGCCGTCCTCAGTGCCTACACCACTAATGTTAC
AATTGAATCCTATAACATGAACCCTATCGTATATTGGGAGTACCAGATCATGCCACAGGTCCCTGTTTTTACCGT
AGAGGTAAAGAACTATGGTGTTAAGAATTGAGAATGGATTGATGCCTGCATCAATATTTCTCATCATTATTGTAA
TATTTCTGATCATGTTGGTGA³CCATCAAATTCTCTTTGGGTGAGATTAAAGCCAGGGTTGGACAAAAAGAATC
TGCCTATGCAAAGTCAGAAGAATTTGCTGTATGCCGAGATGGAAAAATTGGACCACCTAAACTGGATATCAGAAA
GGAGGAGAAGCAAATCATGATTGACATATTTACCCCTTCAGTTTTTGTAAATGGAGACGAGCAGGAAGTCGATTA
TGATCCCCGAAACTACCTGTTACATTAGGGTGTACAATGTGTATGTGAGAATGAACGGAAGTGAGATCCAGTATAA
AATACTCACGCAGAAGGAAGATGATTGTGACGAGATTTCAGTGCCAGTTAGCGATTCCAGTATCCTCACTGAATTC
TCAGTACTGTGTTTCAGCAGAAGGAGTCTTACATGTGTGGGGTGTTACAACCTGAAAAGTCAAAGAAGTTTGTAT
TACCATTTTCAATAGCAGTATAAAAGGTTCTCTTTGGATTCCAGTTGTTGCTGCTTTACTACTCTTTCTAGTGCT
TAGCCTGGTATTTCATCTGTTTTTATATTAAGAAAA TTAATCCATTGAAGGAAAAAGCATAATATTACCCAAGTC
CTTGATCTCTGTGGTAAGAAGTGCTACTTTAGAGACAAAACCTGAATCAAATATGTATCACTCATCACGTCATA
CCAGCCATTTTCCTTAGAAAAGGAGGTGGTCTGTGAAGAGCCGTTGTCTCCAGCAACAGTTCAGGCATGCATAC
CGAAGACAATCCAGGAAAAGTGGAAACATACAGAAGAACTTCTAGTATAACAGAAGTGGTGACTACTGAAGAAAA
TATTCCTGACGTGGTCCCGGGCAGCCATCTGACTCCAATAGAGAGAGAGAGTTCTTCACCTTTAAGTAGTAACCA
GTCTGAACCTGGCAGCATCGCTTTAAACTCGTATCACTCCAGAAATTGTTCTGAGAGTGATCACTCCAGAAATGG
TTTTGATACTGATTCCAGCTGTCTGGAATCACATAGCTCCTTATCTGACTCAGAATTTCCCCCAAATAATAAAGG
TGAAATAAAAAACAGAAGGACAAGAGCTCATAACCGTAATAAAAGCCCCACCTCCTTTGGTTATGATAAACCACA
TGTGCTAGTGGATCTACTTGTGGATGATAGCGGTAAAGAGTCCTTGATTGGTTATAGACCAACAGAAGATTCCAA
AGAATTTTCATGAGATCAGCTAAGTTGCACCAACTTTGAAGTCTGATTTTCTGGACAGTTTTCTGCTTTAATTT
CATGAAAAGATTATGATCTCAGAAATTGTATCTTAGTTGGTATCAACCAAATGGAGTGACTTAGTGTACATGAAA
GCGTAAAGAGGATGTGTGGCATTTCACCTTTGGCTTGTAAGTACAGACTTTTTTTTTTTTTTAAACAAAAAAA
GCATTGTAACCTTATGAACCTTTACATCCAGATAGGTTACCAGTAACGGAACATATCCAGTACTCCTGGTTCCTAG
GTGAGCAGGTGATGCCCCAGGGACCTTTGTAGCCACTTCACCTTTTTTCTTTCTCTGCCTTGGTATAGCATATG
TGTTTTGTAAGTTTATGCATACAGTAATTTAAGTAATTTCAGAAGAAATTCTCGAAGCTTTTCAAATTGGACT
TAAATCTAATTCAAATAATAGAATTAATGGAATATGTAAATAGAAACGTGTATATTTTTTATGAAACATTACA
GTTAGAGATTTTTAAATAAAGAATTTTAAACTC

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FIGURE 23

MALLFLLPLVMQGVSRAMGTADLGPSSVPTPTNVTIESYNMNPVYWEYQIMPQVPVFTVEVKNYGVKNSEWID
ACINISHHYCNISDHVGDPSNSLWVRVKARVGQKESAYAKSEEFVAVCRDGKIGPPKLDIRKEEKQIMIDIFHPSV
FVNGDEQEVDYDPETTCYIRVYNVYVRMNGSEIQYKILTQKEDDCDEIQCQLAIPVSSLNSQYCVSAEGVLHVWG
VTTEKSKEVCITIFNSSIKGSLWIPVVAALLFLVLSLVFICFYIKKINPLKEKSIILPKSLISVVRSATLETKP
ESKYVSLITSYQPFSLKEVVCCEPLSPATVPGMHTEDNPGKVEHTEELSSITEVVTTEENIPDVVPGSHLTPIE
RESSSPLSSNQSEPGSIALNSYHSRNCSESDHSRNGFDTDSSCLESLSLSDSEFPNNKGEIKTEGQELITVIK
APTSFGYDKPHVLVDLLVDDSGKESLIGYRPTEDSKEFS

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FIGURE 24

GAGAGACTGGATGGACCCACAAGGGTGACAGCCCAGGCGGACCGATCTTCCCATCCCACATCCTCCGGCGCGATG
CCAAAAAGAGGCTGACGGCAACTGGGCCCTTCTGCAGAGAAAGACCTCCGCTTCACTGCCCCGGCTGGTCCCAAGG
GTCAGGAAGATGGATTTCATACCTGCTGATGTGGGGACTGCTCACGTTCATCATGGTGCCTGGCTGCCAGGCAGAG
CTCTGTGACGATGACCCGCCAGAGATCCACACGCCACATTCAAAGCCATGGCCTACAAAGGAAGGAACCATGTTG
AACTGTGAATGCAAGAGAGGTTTCCGCAGAATAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAACTCTAGC
CACTCGTCTGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACAACGAAACAAGTGACACCTCAA
CCTGAAGAACAGAAAGAAAGGAAAACACAGAAATGCAAAGTCCAATGCAGCCAGTGGACCAAGCGAGCCTTCCA
GGTCACTGCAGGGAACCTCCACCATGGGAAAATGAAGCCACAGAGAGAATTTATCATTTTCGTGGTGGGGCAGATG
GTTTATTATCAGTGCCTCCAGGGATACAGGGCTCTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCAC
GGGAAGACAAGGTGGACCCAGCCCCAGCTCATATGCACAGGTGAAATGGAGACCAGTCAGTTTCCAGGTGAAGAG
AAGCCTCAGGCAAGCCCCGAAGGCCGTCTGAGAGTGAGACTTCCTGCCTCGTCACAACAACAGATTTTCAAATA
CAGACAGAAATGGCTGCAACCATGGAGACGTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTT
TTCTGCTGATCAGCGTCTCTCTCTGAGTGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATC
TAGAAAACCAAAAGAACAAGAATTTCTTGTAAGAAGCCGGGAACAGACAACAGAAATCATGAAGCCCAAGTGAA
ATCAAAGGTGCTAAATGGTCGCCCAGGAGACATCCGTTGTGCTTGCCTGCGTTTTGGAAGCTCTGAAGTCACATC
ACAGGACACGGGGCAGTGGCAACCTTGCTCTATGCCAGCTCAGTCCCATCAGAGAGCGAGCGCTACCCACTTCT
AAATAGCAATTTTCGCCGTTGAAGAGGAAGGGCAAAACCACTAGAACTCTCCATCTTATTTTCATGTATATGTGTT
CATTAAAGCATGAATGGTATGGAACCTCTCTCCACCCTATATGTAGTATAAAGAAAAAGTAGGTTTACATTCTC
ATTCCAACCTTCCCAGTTCAGGAGTCCCAAGGAAAGCCCCAGCACTAACGTAAATACACAACACACACTCTACC
CTATACAACTGGACATTGTCTGCGTGGTTCCTTTCTCAGCCGCTTCTGACTGCTGATTCTCCCGTTCACGTTGCC
TAATAAACATCCTTCAAGAACTCTGGGCTGCTACCCAGAAATCATTTTACCCTTGGCTCAATCCTCTAAGCTAAC
CCCCTTCTACTGAGCCTTCAGTCTTGAATTTCTAAAAACAGAGGCCATGGCAGAATAATCTTTGGGTAACCTCA
AAACGGGGCAGCCAAACCCATGAGGCAATGTCAGGAACAGAAGGATGAATGAGGTCCCAGGCAGAGAATCATACT
TAGCAAAGTTTTTACCTGTGCGTTACTAATTGGCCTCTTTAAGAGTTAGTTTCTTTGGGATTGCTATGAATGATAC
CCTGAATTTGGCCTGCACTAATTTGATGTTTACAGGTGGACACACAAGGTGCAAATCAATGCGTACGTTTCCTGA
GAAGTGTCTAAAAACACCAAAAAGGGATCCGTACATTCATGTTTATGCAAGGAAGGAAAGAAAGGAAGTGA
AGAGGGAGAAGGGATGGAGGTCACACTGGTAGAACGTAACCACGGAAGAGCGCATCAGGCCTGGCACGGTGGC
TCAGGCCTATAACCCAGCTCCCTAGGAGACCAAGGCGGGAGCATCTCTTGAGGCCAGGAGTTTGAGACCAGCCT
GGGCAGCATAGCAAGACACATCCCTACAAAAAATTAGAAATTGGCTGGATGTGGTGGCATACGCCTGTAGTCCTA
GCCACTCAGGAGGCTGAGGCAGGAGATTGCTTGAGCCAGGAGTTCGAGGCTGCAGTCAGTCATGATGGCACCA
CTGCACTCCAGCCTGGGCAACAGAGCAAGATCCTGTCTTTAAGGAAAAAAGACAAGG

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FIGURE 25

MDSYLLMWGLLTFIMVPGCAELCDDDPPEIPHATFKAMAYKEGTMLNCECKRGFRRIKSGSLYMLCTGNSSHSS
WDNQCQCTSSATRNTTKQVTPQPPEEQKERKTTEMQSPMQPVDQASLPGHCREPPPWENEATERIYHFVVGQMVYY
QCVQGYRALHRGPAESVCKMTHGKTRWTQPQLICTGEMETSQFPGEEKPQASPEGRPESETSCLVTTTDFQIQTE
MAATMETSIFTTEYQVAVAGCVFLLISVLLLSGLTWQRRQRKSRTI

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FIGURE 26

GGCGAATGGAGCAGGGGCGCGCAGATAATTAAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGT
GGTGGCTCATGCCTATAATCCCAGCACTTTTGGAGGCTGAGGCGGGCAGATCATTGAGATCAGGAGTTCGAGAC
CAGCCTGGTGCCTTGGCATCTCCCAATCGGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCCT
GCTGCAGGTGGCAAGCTCTGGGAACATGAAGGTCTTGCAGGAGCCACCTGCGTCTCCGACTACATGAGCATCTC
TACTTGGCAGTGAAGATGAATGGTCCCACCAATTGCAGCACCGAGCTCCGCCTGTTGTACCAGCTGGTTTTTCT
GCTCTCCGAAGCCCACACGTGTATCCCTGAGAACAACGGAGGCGCGGGGTGCGTGTGCCACCTGCTCATGGATGA
CGTGGTCAGTGGCGATAACTATACACTGGACCTGTGGGCTGGGCAGCAGCTGCTGTGGAAGGGCTCCTTCAAGCC
CAGCGAGCATGTGAAACCCAGGGCCCCAGGAAACC TGACAGTTACACCAATGTCTCCGACACTCTGCTGCTGAC
CTGGAGCAACCCGTATCCCCCTGACAATTACCTGTATAATCATCTCACCTATGCAGTCAACATTTGGAGTGAAAA
CGACCCGGCAGATTTGAGAATCTATAACGTGACCTACCTAGAACCCTCCCTCCGCATCGCAGCCAGCACCCCTGAA
GTCTGGGATTTTCTACAGGGCACGGGTGAGGGCCTGGGCTCAGTGCTATAACACCACCTGGAGTGAGTGGAGCCC
CAGCACCAAGTGGCACAACCTCTACAGGGAGCCCTTCGAGCAGCACCTCCTGCTGGGCGTCAGCGTTTCTGTCAT
TGTCATCTGGCCGTCTGCCTGTTGTGCTATGTACGATCACCAAGATTAAGAAAGAATGGTGGGATCAGATTCC
CAACCCAGCCCGCAGCCGCTCTGTGGCTATAATAATCCAGGATGCTCAGGGGTACAGTGGGAGAAGCGGTCCCG
AGGCCAGGAACCAGCCAAGTGCCACACTGGAAGAATTGTCTTACCAAGCTCTTGCCCTGTTTTCTGGAGCACAA
CATGAAAAGGGATGAAGATCCTCACAAGGCTGCCAAAGAGATGCCTTTCCAGGGCTCTGGAAAATCAGCATGGTG
CCCAGTGGAGATCAGCAAGACAGTCTCTGGCCAGAGAGCATCAGCGTGGTGCGATGTGTGGAGTTGTTTGAGGC
CCCGTGGAGTGTGAGGAGGAGGAGGAGGTAGAGGAAGAAAAAGGGAGCTTCTGTGCATCGCCTGAGAGCAGCAG
GGATGACTTCCAGGAGGGAAGGGAGGGCATTGTGGCCCGGCTAACAGAGAGCCTGTTCTGGACCTGCTCGGAGA
GGAGAATGGGGGCTTTTGCCAGCAGGACATGGGGGAGTCATGCCTTCTTCCACCTTCGGGAAGTACGAGTGCTCA
CATGCCCTGGGATGAGTTCCCAAGTGAGGGCCCCAAGGAGGCACCTCCCTGGGGCAAGGAGCAGCCTCTCCACCT
GGAGCCAAGTCTCTGCCAGCCCCAGCCAGAGTCCAGACAACCTGACTTGACAGAGACGCCCCCTCGTCATCGC
AGGCAACCTGCTTACCGCAGCTTCAGCAACTCCCTGAGCCAGTCACCGTGTCCCAGAGAGCTGGGTCCAGACCC
ACTGCTGGCCAGACACCTGGAGGAAGTAGAACCCGAGATGCCCTGTGTCCCCCAGCTCTCTGAGCCAACCACTGT
GCCCCAACCTGAGCCAGAAACCTGGGAGCAGATCCTCCGCCGAAATGTCTCCAGCATGGGGCAGCTGCAGCCCC
CGTCTCGGCCCCCACCAGTGGCTATCAGGAGTTTGACATGCGGTGGAGCAGGGTGGCACCCAGGCCAGTGCCTG
GGTGGGCTTGGGTCCCCCAGGAGAGGCTGGTTACAAGGCCTTCTCAAGCCTGCTTGCCAGCAGTGCTGTGTCCCC
AGAGAAATGTGGGTTTGGGGCTAGCAGTGGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATTCTGGCTGCC
TGGGGACCTTGCCCCAGTCCCTGTCCCTTGTTCACCTTTGGACTGGACAGGGAGCCACCTCGCAGTCCGCAGAG
CTCACATCTCCCAAGCAGCTCCCCAGAGCACCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCC
CCCCTTCCCCAGGAGCAGGCCACAGACCCCTTGTGGACAGCCTGGGCAGTGGCATTGTCTACTCAGCCCTTAC
CTGCCACCTGTGCGGCCACCTGAAACAGTGTATGGCCAGGAGGATGGTGGCCAGACCCCTGTCTATGGCCAGTCC
TTGCTGTGGCTGCTGCTGTGGAGACAGGTCTCGCCCCCTACAACCCCCCTGAGGGCCCCAGACCCCTCTCCAGG
TGGGGTTCCACTGGAGGCCAGTCTGTGTCCGGCCTCCCTGGCACCCCTCGGGCATCTCAGAGAAGAGTAAATCCTC
ATCATCCTTCCATCCTGCCCCCTGGCAATGCTCAGAGCTCAAGCCAGACCCCCAAAATCGTGAACTTTGTCTCCGT
GGGACCCACATACATGAGGGTCTCTTAGGTGTCATGTCTCTTGTGTGCTGAGTCTGCAGATGAGGACTAGGGCTTA
TCCATGCCTGGGAAATGCCACCTCCTGGAAGGCAGCCAGGCTGGCAGATTTCCAAAAGACTTGAAGAACCATGGT
ATGAAGGTGATTGGCCCCACTGACGTTGGCCTAACACTGGGCTGCAGAGACTGGACCCCGCCAGCATTGGGCTG
GGCTCGCCACATCCCATGAGAGTAGAGGGCACTGGGTGCGCGTGCCCCACGGCAGGCCCCCTGCAGGAAAACCTGAG
GCCCTTGGGCACCTCGACTTGTGAACGAGTTGTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTGTCCCTGTT
GTAAC TGCCCAAGGCATGTTTTGCCCAACAGATCATGGCCACGTGGAGGCCACCTGCCTCTGTCTCACTGAAC
TAGAAGCCGAGCCTAGAACTAACACAGCCATCAAGGGAATGACTTGGGCGGCCTTGGGAAATCGATGAGAAATT
GAACCTCAGGGAGGGTGGTCATTGCCTAGAGGTGCTCATTCATTTAACAGAGCTTCCTTAGGTTGATGCTGGAGG
CAGAATCCCGGCTGTCAAGGGGTGTTCAAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGCTATGACTAAAGCA
GGGACAATTTGCTGCCAAACACCCATGCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCCAGAAT
AAATATGCTCAGCCACCCTGTGGGCCGGGCAATCCAGACAGCAGGCATAAGGCACCAGTTACCCTGCATGTTGGC
CCAGACCTCAGGTGCTAGGGAAGGCGGGAACCTTGGGTTGAGTAATGCTCGTCTGTGTGTTTTAGTTTCATCACC
TGTTATCTGTGTTTGGCTGAGGAGAGTGGAACAGAAGGGGTGGAGTTTTGTATAAATAAAGTTTCTTTGTCTC

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FIGURE 27

MGWLCSGLLPVSVCLVLLQVASSGNMKVLQEPTCVSDYMSISTCEWKMNPTNCSTELRLLYQLVFLLEAHTCI
PENNGGAGCVCHLLMDDVVSADNYTLDLWAGQQLWKGSFKPSEHVKPRAPGNLTVHTNVSDTLLLTWSNPYP
NYLYNHLTYAVNIWSENDPADFRIYNVTYLEPSLR IAASTLKSGISYRARVRAWAQCYNITWSEWSPSTKWHNSY
REPFEQHLLLGVSVCIVILAVCLLCYVSITKIKKEWWDQIPNPARSRLVAII IQDAQGSQWEKRSRGQEPACCP
HWKNCLTKLLPCFLEHNMKRDEDPHKA AKEMPFGSGKSAWCPVEISKTVLWPESISVVRVVELFEAPVECEEEE
EVEEEKGSFCASPESSRDDFQEGREGIVARLTESLFLDLLGEENGFCQQDMGESCLLPSPSGSTSAHMPWDEFPS
AGPKEAPPWGKEQPLHLEPSPASPTQSPDNLTCTETPLVIAGNPAYRSFSNSLSQSPCPRELGPDP LLARHLEE
VEPEMPCVPQLSEPTTVPQPEPETWEQILRRNVLQHGA AAAPVSAPTSGYQEFVHAVEQGGTQASAVVGLGPPGE
AGYKAFSSLLASSAVSPEKCGFGASSGEEGYKPFQDLIPGCPGDPAPVPVPLFTFGLDREPPRSPQSSHL PSSSP
EHLGLEPGEKVEDMPKPPLPQEATDPLVDSLGS GIVYSALTCHLCGHLKQCHGQEDGGQTPVMASPCCGCCCGD
RSSPPTTPLRAPDPSPGGVPLEASLCPASLAPSGI SEKSKSSSSSFHPAGNAQSSSQTPKIVNFVSVGPTYMRVS

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FIGURE 28

GCCCCATCTCCTTGGGCTGCCCGTGCTTCGTGCTTTGGACTACCGCCCAGCAGTGTCTTGCCCTCTGCCTGGGCC
TCGGTCCCTCCTGCACCTGCTGCCTGGATCCCCGGCCTGCCTGGGCCTGGGCCTTGGTTCTCCCCATGACACCAC
CTGAACGTCTCTTCTCCCAAGGGTGTGTGGCACCACCCTACACCTCCTCCTTCTGGGGCTGCTGCTGGTTCTGC
TGCCTGGGGCCCAAGGGCTCCCTGGTGTGGCCTCACACCTTCAGCTGCCCAGACTGCCCGTCAGCACCCCAAGA
TGCATCTTGGCCACAGCACCCCTCAAACCTGCTGCTCACCTCATTGGAGACCCAGCAAGCAGAACTCACTGCTCT
GGAGAGCAAACACGGACCGTGCCTTCCTCCAGGATGGTTTCTCCTTGAGCAACAATTCTCTCCTGGTCCCCACCA
GTGGCATCTACTTCGTCTACTCCCAGGTGGTCTTCTCTGGGAAAGCCTACTCTCCCAAGGCCACCTCCTCCCCAC
TCTACCTGGCCCATGAGGTCCAGCTCTTCTCCTCCAGTACCCCTTCCATGTGCCTCTCCTCAGCTCCCAGAAGA
TGGTGTATCCAGGGCTGCAGGAACCCTGGCTGCACTCGATGTACCACGGGGCTGCGTTCCAGCTCACCCAGGGAG
ACCAGCTATCCACCCACACAGATGGCATCCCCACCTAGTCCTCAGCCCTAGTACTGTCTTCTTGGAGCCTTCG
CTCTGTTAGAACTTGAAAAATCCAGAAAGAAAAATAATTGATTTCAAGACCTTCTCCCCATTCTGCCTCCATTCT
TGACCATTTTCAGGGGTCGTCAACACCTCTCCTTTGGCCATTCCAACAGCTCAAGTCTTCCCTGATCAAGTCACCG
GAGCTTTCAAAGAAGGAATTCTAGGCATCCCAGGGGACCACACCTCCCTGAACCATCCCTGATGCTGTCTGGCT
GAGGATTTCAAGCCTGCCTAGGAATTCCCAGCCCAAAGCTGTTGGTCTGTCCCACCAGCTAGGTGGGGCCTAGAT
CCACACACAGAGGAAGAGCAGGCACATGGAGGAGCTTGGGGGATGACTAGAGGCAGGGAGGGGACTATTTATGAA
GGCAAAAAAATTAAATTATTTATTTATGGAGGATGGAGAGAGGGGAATAATAGAAGAACATCCAAGGAGAAACAG
AGACAGGCCCAAGAGATGAAGAGTGAGAGGGCATGCGCACAAGGCTGACCAAGAGAGAAAGAAGTAGGCATGAGG
GATCACAGGGCCCCAGAAGGCAGGGAAAGGCTCTGAAAGCCAGCTGCCGACCAGAGCCCCACACGGAGGCATCTG
CACCTCGATGAAGCCCAATAAACCTCTTTTCTCTG

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FIGURE 29

MTPPERLFLPRVCGTTLHLLLGLLLVLLPGAQGLPGVGLTPSAAQTARQHPKMHLAHSTLKPAAHLIGDPSKQN
SLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFVYSQVVFSGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLS
SQKMVYPGLQEPWLHSMYHGAAFQLTQGDQLSTHTDGIPHLVLSPSTVFFGAFAL

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FIGURE 30

TTCTGCCCTCGAGCCACCGGGAACGAAAGAGAAGCTCTATCTCGCCTCCAGGAGCCCAGCTATGA¹ACTCCTTCT
CCACAAGCGCCTTCGGTCCAGTTGCCTTCTCCCTGGGGCTGCTCCTGGTGTTCCTGCTGCCTTCCCTGCCCCAG
TACCCCCAGGAGAAGATTCCAAAGATGTAGCCGCCCCACACAGACAGCCACTCACCTCTTCAGAACGAATTGACA
AACAAATTCGGTACATCCTCGACGGCATCTCAGCCCTGAGAAAGGAGACATGTAACAAGAGTAACATGTGTGAAA
GCAGCAAAGAGGCACTGGCAGAAAACAACCTGAACCTTCCAAAGATGGCTGAAAAAGATGGATGCTTCCAATCTG
GATTCAATGAGGAGACTTGCCTGGTGAAAATCATCACTGGTCTTTTGGAGTTTGAGGTATACCTAGAGTACCTCC
AGAACAGATTTGAGAGTAGTGAGGAACAAGCCAGAGCTGTGCAGATGAGTACAAAAGTCCTGATCCAGTTCCTGC
AGAAAAAGGCAAAGAATCTAGATGCAATAACCACCCCTGACCCAACCACAAATGCCAGCCTGCTGACGAAGCTGC
AGGCACAGAACCAGTGGCTGCAGGACATGACAACTCATCTCATTCTGCGCAGCTTTAAGGAGTTCCTGCAGTCCA
GCCTGAGGGCTCTTCGGCAAATGTAGCATGGGCACCTCAGATTGTTGTTGTTAATGGGCATTCTTCTTCTGGTC
AGAAACCTGTCCACTGGGCACAGAACTTATGTTGTCTCTATGGAGAACTAAAAGTATGAGCGTTAGGACACTAT
TTTAATTATTTTTAATTTATTAATATTTAAATATGTGAAGCTGAGTTAATTTATGTAAGTCATATTTATATTTTT
AAGAAGTACCACTTGAAACATTTTATGTATTAGTTTGAATAATAATGGAAAGTGGCTATGCAGTTTGAATAIC
CTTTGTTTCAGAGCCAGATCATTTCTTGAAAGTGTAGGCTTACCTCAAATAAATGGCTAACTTATACATATTTT
TAAAGAAATATTTATATTGTATTTATATAATGTATAAATGGTTTTTATACCAATAAATGGCATTTTAAAAAATTC

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FIGURE 31

MNSFSTSAFGPVAFSLGLLLVLPAAFPAPVPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKETCNKS
NMCESSKEALAENNLNLPKMAEKDGCFSGFNEETCLVKIITGLLEFEVYLEYLQNRFESSEEQARAVQMSTKVL
IQFLQKKAKNLDAITTPDPTTNASLLTKLQAQNQWLQDMTTHLILRSFKEFLQSSLRALRQM

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FIGURE 32

CAGGACTGCCTGAGACAAGCCACAAGCTGAACAGAGAAAGTGGATTGAACAAGGACGCATTTCCCCAGTACATCC
ACAACATGCTGTCCACATCTCGTTCTCGGTTTATCAGAAATACCAACGAGAGCGGTGAAGAAGTCACCACCTTTT
TTGATTATGATTACGGTGCTCCCTGTCATAAATTTGACGTGAAGCAAATTGGGGCCCAACTCCTGCCTCCGCTCT
ACTCGCTGGTGTTTCATCTTTGGTTTTGTGGGCAACATGCTGGTCGTCCTCATCTTAATAAACTGCAAAAAGCTGA
AGTGCTTGACTGACATTTACCTGCTCAACCTGGCCATCTCTGATCTGCTTTTTCTTATTACTCTCCCATTGTGGG
CTCACTCTGCTGCAAATGAGTGGGTCTTTGGGAATGCAATGTGCAAATTATTCACAGGGCTGTATCACATCGGTT
ATTTTGGCGGAATCTTCTTCATCATCCTCCTGACAATCGATAGATACCTGGCTATTGTCATGCTGTGTTTGCTT
TAAAAGCCAGGACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACCTGGTTGGTGGCTGTGTTTGCTTCTGTCC
CAGGAATCATCTTTACTAAATGCCAGAAAGAAGATTCTGTTTTATGTCTGTGGCCCTTATTTTCCACGAGGATGGA
ATAATTTCCACACAATAATGAGGAACATTTTGGGGCTGGTCCTGCCGCTGCTCATCATGGTCATCTGCTACTCGG
GAATCCTGAAAACCTGCTTCGGTGTCGAAACGAGAAGAAGAGGCATAGGGCAGTGAGAGTCATCTTCACCATCA
TGATTGTTTACTTTCTCTTCTGGACTCCCTATAACATTGTCAATTCTCCTGAACACCTTCCAGGAATTCTTCGGCC
TGAGTAACCTGTGAAAGCACCAGTCAACTGGACCAAGCCACGCAGGTGACAGAGACTCTTGGGATGACTCACTGCT
GCATCAATCCCATCATCTATGCCTTCGTTGGGGAGAAGTTCAGAAGGTATCTCTCGGTGTTCTTCCGAAAGCACA
TCACCAAGCGCTTCTGCAAACAATGTCCAGTTTTCTACAGGGAGACAGTGGATGGAGTGAATCAACAAACACGC
CTTCCACTGGGGAGCAGGAAGTCTCGGCTGGTTTTATAAACGAGGAGCAGTTTGATTGTTGTTTATAAAGGGAGA
TAACAATCTGTATATAACAACAACTTCAAGGGTTTGTTGAACAATAGAAACCTGTAAAGCAGGTGCCCAGGAAC
CTCAGGGCTGTGTGTACTAATACAGACTATGTCACCCAATGCATATCCAACATGTGCTCAGGGAATAATCCAGAA
AACTGTGGGTAGAGACTTTGACTCTCCAGAAAGCTCATCTCAGCTCCTGAAAAATGCCTCATTACCTTGCTGCTA
ATCCTCTTTTTCTAGTCTTCATAATTTCTTCACTCAATCTCTGATTCTGTCAATGTCTTGAAATCAAGGGCCAGC
TGGAGGTGAAGAAGAGAATGTGACAGGCACAGATGAATGGGAGTGAGGGATAGTGGGGTCAGGGCTGAGAGGAGA
AGGAGGGAGACATGAGCATGGCTGAGCCTGGACAAAGACAAAGGTGAGCAAAGGGCTCACGCATTACGCCAGGAG
ATGATACTGGTCCTTAGCCCCATCTGCCACGTGTATTTAACCTTGAAGGGTTCACCAGGTGAGGGAGAGTTGGG
AACTGCAATAACCTGGGAGTTTTGGTGGAGTCCGATGATTCTCTTTGCATAAGTGCATGACATATTTTTGCTTT
ATTACAGTTTATCTATGGCACCCATGCACCTTACATTTGAAATCTATGAAATATCATGCTCCATTGTTTCAGATGC
TTCTTAGGCCACATCCCCCTGTCTAAAAATTCAGAAATTTTTGTTTATAAAAGATGCATTATCTATGATATGCT
AATATATGTATATGCAATATAAAATTTAG

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FIGURE 33

MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKC
LTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLAIVHAVFALK
ARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGI
LKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI
NP I IYAFVGEKFRRYLSVFFRKHITKRFCKQCPVFYRETVDGVTSTNTPSTGEQEV SAGL

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FIGURE 34

GGAAACATGATCCAGCTGAAGGACTGATTGCAGGAAAACCTTGGCAGCTCCCCAACCTTGGTGGCCCAGGGAGTGT
GAGGCTGCAGCCTCAGAAGGTGTGAGCAGTGGCCACGAGAGGCAGGCTGGCTGGGACATGAGGTGGCAGAGGGC
AGGCAAGCTGGCCCTTGGTGGGCCTCGCCCTGAGCACTCGGAGGCACTCCTATGCTTGGAAAGCTCGCT**ATG**CTG
CTGTGGGTCCAGCAGGCGCTGCTCGCCTTGCTCCTCCCCACACTCCTGGCACAGGGAGAAGCCAGGAGGAGCCGA
AACACCACCAGGCCCCGCTCTGCTGAGGCTGTCCGATTACCTTTTGACCAACTACAGGAAGGGTGTGCGCCCCGTG
AGGGAAGTGGAGGAAGCCAACCACCGTATCCATTGACGTCATTGTCTATGCCATCCTCAACGTGGATGAGAAGAAT
CAGGTGCTGACCACCTACATCTGGTACCGGCAGTACTGGACTGATGAGTTTCTCCAGTGAACCCCTGAGGACTTT
GACAACATCACCAAGTTGTCCATCCCCACGGACAGCATCTGGGTCCCGGACATTCTCATCAATGAGTTCGTGGAT
GTGGGGAAGTCTCCAAATATCCCGTACGTGTATATTCGGCATCAAGGCGAAGTTCAGAACTACAAGCCCCCTTCAG
GTGGTGAAGTGCCTGTAGCCTCGACATCTACAACCTCCCTTCGATGTCCAGAACTGCTCGCTGACCTTCACCAGT
TGGCTGCACACCATCCAGGACATCAACATCTCTTTGTGGCGCTTGCCAGAAAAGGTGAAATCCGACAGGAGTGT
TTTATGAACAGGAGAGTGGGAGTTGCTGGGGGTGCTGCCCTACTTTTGGGAGTTCAGCATGGAAGCAGTAAC
TACTATGCAGAAATGAAGTTCTATGTGGTTCATCCGCCGGCGGCCCTCTTCTATGTGGTCAGCCTGCTACTGCCC
AGCATCTTCTCATGGTTCATGGACATCGTGGGCTTCTACCTGCCCCCAACAGTGGCGAGAGGGTCTCTTTCAAG
ATTACACTCCTCCTGGGCTACTCGGTCTTCTGATCATCGTTTCTGACACGCTGCCGGCCACTGCCATCGGCACT
CCTCTCATTGGTGTCTACTTTGTGGTGTGCATGGCTCTGCTGGTGATAAGTTTGGCCGAGACCATCTTCATTGTG
CGGCTGGTGCACAAGCAAGACCTGCAGCAGCCCGTGCTGCTGGCTGCGTCACCTGGTTCTGGAGAGAATCGCC
TGGCTACTTTGCTGAGGGAGCAGTCAACTTCCAGAGGCCCCAGCCACCTCCCAAGCCACCAAGACTGATGAC
TGCTCAGCCATGGGAAACCACTGCAGCCACATGGGAGGACCCAGGACTTCGAGAAGAGCCCGAGGGACAGATGT
AGCCCTCCCCCACCACCTCGGGAGGCTCGCTGGCGGTGTGTGGGCTGCTGCAGGAGCTGTCTCCATCCGGCAA
TTCTTGAAAAGCGGGATGAGATCCGAGAGGTGGCCCGAGACTGGCTGCGCGTGGGCTCCGTGCTGGACAAGCTG
CTATTCCACATTTACCTGCTAGCGGTGCTGGCCTACAGCATCACCTGGTTATGCTCTGGTCCATCTGGCAGTAC
GCT**TGAG**TGGGTACAGCCAGTGGAGGAGGGGTACAGTCCTGTTAGGTGGGGACAGAGGATTTCTGCTTAGGC
CCCTCAGGACCCAGGGAATGCCAGGGACATTTTCAAGACACAGACAAAGTCCCGTGCCCTGTTTCCAATGCCAAT
TCATCTCAGCAATCACAAGCCAAGGTCTGAACCCTTCCACCAAAACTGGGTGTTCAAGGCCCTTACACCCTTGT
CCCACCCCAAGCAGCTCACCATGGCTTTAAACATGCTCTCTTAGATCAGGAGAACTCGGGCACTCCCTAAGTC
CACTCTAGTTGTGGACTTTTCCCCATTGACCCTCACCTGAATAAGGGACTTTGGAATTCTGCTTCTCTTTCACAA
CTTTGCTTTTAGGTTGAAGGCAAAACCAACTCTCTACTACAGGCCTGATAACTCTGTACGAGGCTTCTCTAAC
CCCTAGTGTCTTTTTTTTCTTACCTCACTTGTGGCAGCTTCCCTGAACACTCATCCCCATCAGATGATGGGAG
TGGGAAGAATAAAATGCAGTGAAACCC

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FIGURE 35

MLLWVQQALLALLPTLLAQGEARRSRNTTRPALLRLSDYLLTNYRKGVPRVDRWKPTTVSIDVIVYAILNVDE
KNQVLTTYIWYRQYWTDEFLQWNPEDFDNITKLSIPTDSIWVPDILINEFVDVGKSPNIPYVYIRHQGEVQNYKP
LQVVTACSLDIYNFPFDVQNCSTFTSWLHTIQDINISLWRLPEKVKSDRSVFMNQGEWELLGVLPYFREFSMES
SNYYAEMKFYVVIRRRPLFYVVSLLLPSIFLMVMDIVGFYLPNSGERVSFKITLLLGYSVFLIIVSDTLPATAI
GTPLIGVYFVVCMA LLVISLAETIFIVRLVHKQDLQQPVPAWLRHLVLERIAWLLCLREQSTSQRPPATSQATKT
DDCSAMGNHCSHMGGPQDFEKSPDRCSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLD
KLLFHIYLLAVLAYSITLVM LWSIWQYA

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FIGURE 36A

CGGAGCGCAGCGGAGCCTGGAGAGAAGGCGCTGGGCTGCGAGGGCGCGAGGGCGCGAGGGGCAACCGGA
CCCCGCCCCGACCCATGGCGCCCGTCGCCGTCTGGGCCGCGCTGGCCGTCGGACTGGAGCTCTGGGCTGCGGGCGC
ACGCCTTGCCCGCCAGGTGGCATTACACCCCTACGCCCGGAGCCCGGGAGCACATGCCGGCTCAGAGAATACT
ATGACCAGACAGCTCAGATGTGCTGCAGCAAATGCTCGCCGGGCCAACATGCAAAAGTCTTCTGTACCAAGACCT
CGGACACCGTGTGTGACTCCTGTGAGGACAGCACATACACCCAGCTCTGGAAGTGGGTTCCCGAGTGCTTGAGCT
GTGGCTCCCGCTGTAGCTCTGACCAGGTGGAACTCAAGCCTGCACTCGGGAACAGAACCGCATCTGCACCTGCA
GGCCCGGCTGGTACTGCGCGCTGAGCAAGCAGGAGGGGTGCCGGCTGTGCGCGCCGCTGCGCAAGTGCCGCCCGG
GCTTCGGCGTGGCCAGACCAGGAAGTGAACATCAGACGTGGTGTGCAAGCCCTGTGCCCCGGGGACGTTCTCCA
ACAGACTTTCATCCACGGATATTTGCAGGCCCCACAGATCTGTAACGTGGTGGCCATCCCTGGGAATGCAAGCA
TGGATGCAGTCTGCACGTCCACGTCCCCACCCGGAGTATGGCCCCAGGGGCGAGTACACTTACCCAGCCAGTGT
CCACAGATCCCAACACAGCAGCCAACTCCAGAACCCAGCACTGCTCCAAGCACCTCCTTCTGCTCCCAATGG
GCCCCAGCCCCCAGCTGAAGGGAGCACTGGCGACTTCGCTCTTCCAGTGGACTGATTGTGGGTGTGACAGCCT
TGGGTCTACTAATAATAGGAGTGGTGAAGTGTGTCATCATGACCCAGGTGAAAAAGAAGCCCTTGTGCTGCAGA
GAGAAGCCAAGGTGCCTCACTTGCCTGCCGATAAGGCCCGGGGTACACAGGGCCCCGAGCAGCAGCACCTGCTGA
TCACAGCGCCGAGCTCCAGCAGCAGCTCCCTGGAGAGCTCGGCCAGTGCGTTGGACAGAAGGGCGCCCACTCGGA
ACCAGCCACAGGCACCAGGCGTGGAGGCCAGTGGGGCCGGGGAGGCCCGGGCCAGCACCGGGAGCTCAGATTCTT
CCCCTGGTGGCCATGGGACCCAGGTCAATGTACCTGCATCGTGAACGTCTGTAGCAGCTCTGACCACAGCTCAC
AGTGCTCCTCCCAAGCCAGCTCCACAATGGGAGACACAGATTCCAGCCCCTCGGAGTCCCCGAAGGACGAGCAGG
TCCCCTTCTCCAAGGAGGAATGTGCCTTTTCGGTCAAGCTGGAGACGCCAGAGACCCTGCTGGGGAGCACCGAAG
AGAAGCCCCTGCCCTTGGAGTGCCTGATGCTGGGATGAAGCCAGTTAACCAGGCCGGTGTGGGCTGTGTGTA
GCCAAGGTGGGCTGAGCCCTGGCAGGATGACCCTGCGAAGGGGCCCTGGTCTTCCAGGGCCCCACCACTAGGAC
TCTGAGGCTCTTTCTGGGCCAAGTTCTCTAGTGCCCTCCACAGCCGACGCTCCCTCTGACCTGCAGGCCAAGA
GCAGAGGCAGCGAGTTGGGGAAGCCTCTGCTGCCATGGTGTGTCCCTCTCGGAAGGCTGGCTGGGCATGGACGT
TCGGGGCATGCTGGGGCAAGTCCCTGACTCTCTGTGACCTGCCCCGCCAGCTGCACCTGCCAGCCTGGCTTCTG
GAGCCCTTGGGTTTTTTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTTCTCCCCCTGGGCTCTGCCAGCTCTGGCTT
CCAGAAAACCCAGCATCCTTTTCTGCAGAGGGGCTTTCTGGAGAGGAGGGATGCTGCCTGAGTACCCATGAAG
ACAGGACAGTGCTTCAGCCTGAGGCTGAGACTGCGGGATGGTCTGGGGCTCTGTGTAGGGAGGAGGTGGCAGCC
CTGTAGGGAACGGGTCCTTCAAGTTAGCTCAGGAGGCTTGGAAAGCATCACCTCAGGCCAGGTGCAGTGGCTCA
CGCCTATGATCCCAGCACTTTGGGAGGCTGAGGCGGGTGGATCACCTGAGGTTAGGAGTTCAGACCAGCCTGGC
CAACATGGTAAAACCCCATCTCTACTAAAAATACAGAAATTAGCCGGGCGTGGTGGCGGGCACCTATAGTCCCAG
CTACTCAGAAGCCTGAGGCTGGGAAATCGTTTGAACCCGGGAAGCGGAGGTTGCAGGGAGCCGAGATCACGCCAC
TGCACCTCCAGCCTGGGCGACAGAGCGAGAGTCTGTCTCAAAAGAAAAAAAAAAGCACCGCCTCCAAATGCTAA
CTTGTCCTTTTGTACCATGGTGTGAAAGTCAGATGCCAGAGGGGCCAGGCAGGCCACCATATTAGTGCTGTGG
CCTGGGCAAGATAACGCACTTCTAACTAGAAATCTGCCAATTTTTTAAAAAAGTAAGTACCCTCAGGCCAACAA
GCCAACGACAAAGCCAACTCTGCCAGCCACATCCAACCCCCACCTGCCATTTCACCCCTCCGCCTTCACTCCG
GTGTGCCTGCAGCCCCGCGCCTCCTTCTGCTGTCTAGGCCACACCATCTCCTTTCAGGGAATTCAGGAACT
AGAGATGACTGAGTCTCGTAGCCATCTCTCTACTCCTACCTCAGCCTAGACCCTCCTCCTCCCCAGAGGGTG
GGTTCCTCTTCCCCACTCCCCACCTTCAATTCTGGGCCCCAAACGGGCTGCCCTGCCACTTTGGTACATGGCCA
GTGTGATCCCAAGTGCCAGTCTTGTTGCTGCGTCTGTGTTGCGTGTCTGTTGGTGTGTAGCCAAGGTCGGTAAG
TTGAATGGCCTGCCTTGAAGCCACTGAAGCTGGGATTCTCCCCATTAGAGTCAGCCTTCCCCCTCCAGGGCCA
GGGCCCTGCAGAGGGGAAACAGTGAGCCTTGCCCGGATTCTGGGAGGAAGCAGGTTGAGGGGCTCCTGGAAG
GCTCAGTCTCAGGAGCATGGGGATAAAGGAGAAGGCATGAATTGTCTAGCAGAGCAGGGGACAGGGTGATAAAT
GTTGATAAATTCCACTGGACTTGAGCTTGGCAGCTGAACTATTGGAGGGTGGGAGAGCCCAGCCATTACCATGGA
GACAAGAAGGGTTTTTCCACCCTGGAATCAAGATGTGAGCTGGCTGGCTGCAGTGACGTGCACCTGTACTCAGGA
GGCTGAGGGGAGGATCACTGGAGCCCAGGAGTTTGGGCTGCAGCGAGCTATGATCGCGCCACTACACTCCAGCC
TGAGCAACAGAGTGAGACCCTGTCTCTTAAAGAAAAAAAAGTCAGACTGCTGGGACTGGCCAGGTTTCTGCCCA
CATTGGACCCACATGAGGACATGATGGAGCGCACC TGCCCCCTGGTGGACAGTCTTGGGAGAACCTCAGGCTTCC
TTGGCATCACAGGGCAGAGCCGGGAAGCGATGAATTTGGAGACTCTGTGGGGCCTTGGTTCCCTTGTGTGTGTGT

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FIGURE 36B

GTTGATCCCAAGACAATGAAAGTTTGCACTGTATGCTGGACGGCATTCTGCTTATCAATAAACCTGTTTGTTTT
AAAAAAAA

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FIGURE 37

MAPVAVWAALAVGLELWAAAHALPAQVAFTPYAPEPGSTCRLREYYDQTAQMCCSKCSPGQHAKVFCTKTSDTV
DSCEDSTYTQLWNWVPECLSCGSRSSDQVETQACTREQNRICTRPGWYCALSKEGCRLCAPLRKCRPGFGVA
RPGTETSDVVCKPCAPGTFSNTTSSTDICRPHQICNVVAIPGNASMDAVCTSTSPTRSMAPGAVHLPQPVSTRSQ
HTQPTPEPSTAPSTSFLLEPMGPSPPAEGSTGDFALPVGLIVGVTALGLLIIGVVNCVIMTQVKKKPLCLQREAKV
PHLPADKARGTQGPEQQHLLITAPSSSSSSLESSASALDRRAPTRNQPPAPGVEASGAGEARASTGSSDSSPGGH
GTQVNVTCIVNVCSSSDHSSQCSSQASSTMGDTDSSPSESPKDEQVPFSKEECAFRSQLETPETLLGSTEEKPLP
LGVPDAGMKPS

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FIGURE 38

GGGCGGGTAGTCGACCGTGTCCGCGCGCCTGGGAGACGCTGCCTCGGCCCCGACGCGCCCGCGCCCCGCGGGCTG
GAGGGTGGTCGCCACTGGGACACTGTGAACCAGGAGTGAGTCGGAGCTGCCGCGCTGCCCAGGCCATGGACTGTG
AGGTCAACAACGGTTCCAGCCTCAGGGATGAGTGCATCACAAACCTACTGGTGTTTGGCTTCCTCCAAAGCTGTT
CTGACAACAGCTTCCGCAGAGAGCTGGACGCACTGGGCCACGAGCTGCCAGTGCTGGCTCCCCAGTGGGAGGGCT
ACGATGAGCTGCAGACTGATGGCAACCGCAGCAGCCACTCCCGCTTGGGAAGAATAGAGGCAGATTCTGAAAGTC
AAGAAGACATCATCCGGAATATTGCCAGGCACCTCGCCAGGTGCGGGACAGCATGGACCGTAGCATCCCTCCGG
GCCTGGTGAACGGCCTGGCCCTGCAGCTCAGGAACACCAGCCGGTCGGAGGAGGACCGGAACAGGGACCTGGCCA
CTGCCCTGGAGCAGCTGCTGCAGGCCTACCCTAGAGACATGGAGAAGGAGAAGACCATGCTGGTGCTGGCCCTGC
TGCTGGCCAAGAAGGTGGCCAGTCACACGCCGTCC TTGCTCCGTGATGTCTTTCACACAACAGTGAATTTTATTA
ACCAGAACCTACGCACCTACGTGAGGAGCTTAGCCAGAAATGGGATGGACTGAACGGACAGTTCCAGAAGTGTGA
CTGGCTAAAGCTTGATGTGGTCACAGCTGTATAGCTGCTTCCAGTG TAGACGGAGCCCTGGCATGTCAACAGCGT
TCCTAGAGAAGACAGGCTGGAAGATAGCTGTGACTTCTATTTTAAAGACAATGTTAAACTTATAACCCACTTTAA
AATATCTACATTAATATACTTGAATGAAAATGTCCATTTACACGTATTTGAATGGCCTTCATATCATCCACACAT
GAATCTGCACATCTGTAAATCTACACACGGTGCCTTTATTTCCACTGTGCAGGTTCCCACTTAAAAATTAAATTG
GAAAGCAGGTTTCAAGGAAGTAGAAACAAAATACAATTTTTTTTGGTAAAAAAAAA

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FIGURE 39

MDCEVNNGSSLRDECITNLLVFGFLQSCSDNSFRRELDALGHELPVLAPQWEGYDELQTDGNRSSHSRLGRIEAD
SESQEDIIRNIARHLAQVGDSMDRSIPPGLVNGLALQLRNTSRSEEDRNRDLATALEQLLQAYPRDMEKEKTMLV
LALLLAKKVASHTPSLLRDVFHTTVNF INQNLRTYVRSLARNGMD

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FIGURE 40

GTCAGCAGAGGCCTCGCTCGGGCGCCAGTGGTCC TGCCGCCTGGTCTCACCTCGCTATGGTTCGTCTGCCTCTG
CAGTGCGTCCTCTGGGGCTGCTTGCTGACCGCTGTCCATCCAGAACCACCCACTGCATGCAGAGAAAAACAGTAC
CTAATAAACAGTCAGTGCTGTTCTTTGTGCCAGCCAGGACAGAACTGGTGAGTGACTGCACAGAGTTCACTGAA
ACGGAATGCCTTCCTTGCGGTGAAAGCGAATTCCTAGACACCTGGAACAGAGAGACACACTGCCACCAGCACAAA
TACTGCGACCCCAACCTAGGGCTTCGGGTCCAGCAGAAGGGCACCTCAGAAACAGACACCATCTGCACCTGTGAA
GAAGGCTGGCACTGTACGAGTGAGGCCTGTGAGAGCTGTGTCTGCACCGCTCATGCTCGCCCGGCTTTGGGGTC
AAGCAGATTGCTACAGGGGTTTCTGATACCATCTGCGAGCCCTGCCCAGTCGGCTTCTTCTCCAATGTGTCATCT
GCTTTCGAAAAATGTCACCCCTTGGACAAGCTGTGAGACCAAAGACCTGGTTGTGCAACAGGCAGGCACAAACAAG
ACTGATGTTGTCTGTGGTCCCCAGGATCGGCTGAGAGCCCTGGTGGTGATCCCCATCATCTTCGGGATCCTGTTT
GCCATCCTCTTGGTGCTGGTCTTTATCAAAAAGGTGGCCAAGAAGCCAACCAATAAGGCCCCCCACCCCAAGCAG
GAACCCCAGGAGATCAATTTTCCCAGCATCTTCTGGCTCCAACACTGCTGCTCCAGTGCAAGGAGACTTTACAT
GGATGCCAACCGGTACCCAGGAGGATGGCAAAGAGAGTCGCATCTCAGTGCAAGGAGAGACAGTGAGGCTGCACC
CACCCAGGAGTGTGGCCACGTGGGCAAACAGGCAGTTGGCCAGAGAGCCTGGTGCTGCTGCTGTGGCGTGAG
GGTGAGGGGCTGGCACTGACTGGGCATAGCTCCCCGCTTCTGCCTGCACCCCTGCAGTTTGAGACAGGAGACCTG
GCACTGGATGCAGAAACAGTTCACCTTGAAGAACC TCTCACTTCACCCCTGGAGCCCCATCCAGTCTCCCAACTTGT
ATTAAAGACAGAGGCAGAAAAA

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FIGURE 41

MVRLPLQCVLWGCLLTAVHPEPPTACREKQYLINSQCCSLCQPGQKLVSDCTEFTETECLPCGESEFLDTWNRET
HCHQHKEYCDPNLGLRVQKGTSETDTICTCEEGWHCTSEACESCVLHRSCSPGFGVKQIATGVSDTICEPCPVGF
FSNVSSAFEKCHPWTSCETKDLVVQQAGTNKTDVVCGPQDRRLRALVVIPIIFGILFAILLVLFIKKVAKKPTNK
APHPKQEPQEINFPDDLPGSNTAAPVQETLHGCQPVTQEDGKESRISVQERQ

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FIGURE 42

ATGCGGGGCGTGTGGCCGCCCCCGGTGTCCGCCCTGCTGTCCGGCTGGGGATGTCGACGTACAAGCGGGCCACG
CTGGACGAGGAGGACCTGGTGGACTCGCTCTCCGAGGGCGACGCATACCCCAACGGCCTGCAGGTGAACTTCCAC
AGCCCCGGAGTGGCCAGAGGTGCTGGGCTGCACGGACCCAGGTGGAGAAGCGGCTGGTGGTGTGGTGGTACTT
CTGGCGGCAGGACTGGTGGCCTGCTTGGCAGCACTGGGCATCCAGTACCAGACAAGATCCCCCTCTGTGTGCCTG
AGCGAAGCTTGTGTCTCAGTGACCAGCTCCATCTTGAGCTCCATGGACCCACAGTGGACCCCTGCCATGACTTC
TTCAGCTACGCCTGTGGGGGCTGGATCAAGGCCAACCCAGTCCCTGATGGCCACTCACGCTGGGGGACCTTCAGC
AACCTCTGGGAACACAACCAAGCAATCATCAAGCACCTCCTCGAAAACCTCCACGGCCAGCGTGAGCGAGGCAGAG
AGAAAGGCGCAAGTATACTACCGTGCCTGCATGAACGAGACCAGGATCGAGGAGCTCAGGGCCAAACCTCTAATG
GAGTTGATTGAGAGGCTCGGGGGCTGGAACATCACAGGTCCCTGGGCCAAGGACAACCTCCAGGACACCCTGCAG
GTGGTCAACGCCCCACTACCGCACCTACCCCTTCTTCTGTCTATGTCAAGTCCGATTCCAAGAACTCCAACAGC
AACGTGATCCAGGTGGACCAGTCTGGCCTGGGCTTGGCCTCGAGAGACTATTACCTGAACAAAACCTGAAAACGAG
AAGGTGCTGACCGGATATCTGAACCTACATGGTCCAGCTGGGGAAGCTGCTGGGCGGCGGGGACGAGGAGGCCATC
CGGCCCCAGATGCAGCAGATCTTGACTTTGAGACGGCACTGGCCAACATCACCATCCACAGGAGAAGCGCCGT
GATGAGGAGCTCATCTACCACAAAGTGACGGCAGCCGAGCTGCAGACCTTGGCACCCGCCATCAACTGGTTGCCT
TTTCTCAACACCATCTTCTACCCCGTGGAGATCAATGAATCCGAGCCTATTGTGGTCTATGACAAGGAATACCTT
GAGCAGATCTCCACTCTCATCAACACCACCGACAGATGCCTGCTCAACAACTACATGATCTGGAACCTGGTGCAG
AAAACAAGCTCCTTCCTTGACCAGCGCTTTCAGGACGCCGATGAGAAGTTCATGGAAGTCATGTACGGGACCAAG
AAGACCTGTCTTCCTCGCTGGAAGTTTTGCGTGAGTGACACAGAAAACAACCTGGGCTTTGCGTTGGGCCCCATG
TTTGTCAAAGCAACCTTCGCCGAGGACAGCAAGAGCATAGCCACCGAGATCATCCTGGAGATTAAGAAGGCATTT
GAGGAAAGCCTGAGCACCCCTGAAGTGGATGGATGAGGAAACCCGAAAATCAGCCAAGGAAAAGGCCGATGCCATC
TACAACATGATAGGATACCCCAACTTCATCATGGATCCCAAGGAGCTGGACAAAGTGTTTAATGACTACACTGCA
GTTCCAGACCTCTACTTTGAAAATGCCATGCGGTTTTTCAACTTCTCATGGAGGGTCACTGCCGATCAGCTCAGG
AAAGCCCCCAACAGAGATCAGTGGAGCATGACCCCGCCCATGGTGAACGCCTACTACTCGCCACCAAGAATGAG
ATTGTGTTTTCCGGCCGGGATCCTGCAGGCACCATTTACACACGCTCCTCACCCAAGGCCTTAACTTTGGTGGC
ATAGGTGTGCTCGTGGGCCATGAGCTGACTCATGCTTTTGATGATCAAGGACGGGAGTATGACAAGGACGGGAAC
CTCCGGCCATGGTGAAGAACTCATCCGTGGAGGCCTTCAAGCGTCAGACCGAGTGCATGGTAGAGCAGTACAGC
AACTACAGCGTGAACGGGGAGCCGGTGAACGGGCGGCACACCCTGGGGGAGAACATCGCCGACAACGGGGGTCTC
AAGGCGGCCTATCGGGCTTACCAGAACTGGGTGAAGAAGAACGGGGCTGAGCACTCGCTCCCCACCCTGGGCCTC
ACCAATAACCAGCTCTTCTTCCTGGGCTTTGCACAGGTCTGGTGTCTCCGTCCGCACACCTGAGAGCTCCACGAA
GGCCTCATCACCGATCCCCACAGCCCCCTCTCGTTCGGGTTCATCGGCTCCCTCTCCAATTCCAAGGAGTTCTCA
GAACACTTCCGCTGCCCACCTGGCTCACCCATGAACCCGCCTACAAGTGCGAAGTCTGGTTAAGACGAAGCGGA
GAGAGCCAAGACGGAGGAGGGGAAGGGGCTGAGGACGAGACCCCCATCCAGCCTCCAGGGCATTGCTCAGCCCGC
TTGGCCACC

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FIGURE 43

MRGVWPPPVVSALLSALGMSTYKRATLDEEDLVDSLSEGDAYPNGLQVNFHSPRSGQRCWAARTQVEKRLVVLVVL
LAAGLVACLAALGIQYQTRSPSVCLSEACVSVTSSILSSMDPTVDPCHDFFSYACGGWIKANPVPDGHSRWGTFS
NLWEHNQAI IKHLENSTASVSEAERKAQVYYRACMNETRIEELRAKPLMELIERLGGWNITGPWAKDNFQDTLQ
VVTAHYRTSPFFSVYVSADSKNSNSNVIQVDQSGLG LPSRDYYLNKTENEKVL TGYLNYMVQLGKLLGGGDEEAI
RPQMQQILD FETALANITIPQEKRRDEELIYHKVTA AELQTLAPAINWLPFLNTIFYPVEINESEPIVVYDKEYL
EQISTLINTTDRCLLN NYMIWNLVRKTSSFLDQRFQDADEKFMEVMYGT KKTCLPRWKFCVSDTENN LGFALGPM
FVKATFAEDSKSIATEIILEIKKAF EESLSTLKWMDEETR KSAKEKADAIYNMIGYPNFIMDPKELDKVFNDYTA
VPDLYFENAMRFFNF SWRVTADQLRKAPNRDQWSMT PPMVNAYYSPTKNEIVFPAGILQAPFYTRSSPKALNFGG
IGVVVGHELTHAFDDQGREYDKDGNLRPWWKNSSVEAFKRQTECMVEQYSNYSVNGEPVNGRHTLGENIADNGGL
KAAYRAYQNWWKKNGAEHSLPTLGLTNNQLFFLGFAQVWCSVRTPESSHEGLITDPHSPSRFRVIGSLSNSKEFS
EHFRCPPGSPMNPPHKCEVW

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FIGURE 44A

TGCCAAGGCTCCAGCCCGGCCGGGCTCCGAGGCGAGAGGCTGCATCGAGTGGCCGGCGCGGCTCTGCGGGCTGTG
GGCGCTGCTGCTCTGCGCCGGCGGGGCGGGGCGGGGCGCCGCGCCTACGGAAACTCAGCCACCTGTGAC
AAATTTGAGTGTCTCTGTTGAAAACCTCTGCACAGTAATATGGACATGGAATCCACCCGAGGGAGCCAGCTCAAA
TTGTAGTCTATGGTATTTTAGTCATTTTGGCGACAAACAAGATAAGAAAATAGCTCCGGAAACTCGTCTGTTCAAT
AGAAGTACCCCTGAATGAGAGGATTGTCTGCAAGTGGGGTCCAGTGTAGCACCAATGAGAGTGAGAAGCCTAG
CATTTTGGTTGAAAAATGCATCTCACCCCCAGAAGGTGATCCTGAGTCTGCTGTGACTGAGCTTCAATGCATTTG
GCACAACCTGAGCTACATGAAGTGTCTTGGCTCCCTGGAAGGAATACCAGTCCCGACACTAACTATACTCTCTA
CTATTGGCACAGAAGCCTGGAAAAAATTCATCAATGTGAAAACATCTTTAGAGAAGGCCAATACTTTGGTTGTTT
CTTTGATCTGACCAAAGTGAAGGATTCCAGTTTGAACAACACAGTGTCCAAATAATGGTCAAGGATAATGCAGG
AAAAATTAAACCATCCTTCAATATAGTGCCTTTAACTTCCCGTGTGAAACCTGATCCTCCACATATTA AAAACCT
CTCCTTCCACAATGATGACCTATATGTGCAATGGGAGAATCCACAGAATTTTATTAGCAGATGCCTATTTTATGA
AGTAGAAGTCAATAACAGCCAAACTGAGACACATAATGTTTTCTACGTCCAAGAGGCTAAATGTGAGAATCCAGA
ATTTGAGAGAAATGTGGAGAATACATCTTGTTTCATGGTCCCTGGTGTCTTCCCTGATACTTTGAACACAGTCAG
AATAAGAGTCAAAACAAATAAGTTATGCTATGAGGATGACAACTCTGGAGTAATTGGAGCCAAGAAATGAGTAT
AGGTAAGAAGCGCAATTCCACACTCTACATAACCATGTTACTCATTGTTCCAGTCATCGTCGAGGTGCAATCAT
AGTACTCCTGCTTTACCTAAAAAGGCTCAAGATTATATATTCCCTCCAATTCCCTGATCCTGGCAAGATTTTAA
AGAAATGTTTGGAGACCAGAATGATGATACTCTGCACTGGAAGAAGTACGACATCTATGAGAAGCAAACCAAGGA
GGAAACCGACTCTGTAGTGCTGATAGAAAACCTGAAGAAAGCCTCTCAGTGAAGGAGATAATTTATTTTACCTT
CACTGTGACCTTGAGAAGATTCTTCCCATCTCCATTGTTATCTGGGAACCTATTAAATGGAACTGAACTAC
TGCACCATTTAAAAACAGGCAGCTCATAAGAGCCACAGGTCTTTATGTTGAGTCGCGCACCGAAAACTAAAAAT
AATGGGCGCTTTGGAGAAGAGTGTGGAGTCATTCTCATTGAATTATAAAAGCCAGCAGGCTTCAAAC TAGGGGAC
AAAGCAAAAAGTGATGATAGTGGTGGAGTTAATCTTATCAAGAGTTGTGACAACCTTCCCTGAGGGATCTATACTTG
CTTTGTGTTCTTTGTGTCAACATGAACAAATTTTATTTGTAGGGGAACCTCATTGGGGTGCAAATGCTAATGTCA
AATTGAGTCACAAAGAACATGTAGAAAACAAATGGATAAAATCTGATATGTATTGTTTGGGATCCTATTGAAC
CATGTTTGTGGCTATTAAAACTCTTTTAACAGTCTGGGCTGGGTCCGGTGGCTCACGCCTGTAATCCAGCAATT
TGGGAGTCCGAGGCGGGCGGATCACTCGAGGTCAGGAGTTCCAGACCAGCCTGACCAAAATGGTGAAACCTCCTC
TCTACTAAAAC TACAAAATTAAC TGGGTGTGGTGGCGCGTGCCTGTAATCCCAGCTACTCGGGAAGCTGAGGCA
GGTGAATTGTTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCAGAGATCACACCACTGCCTCTAGCCTGGGTGAC
AGAGCAAGACTCTGTCTAAAAAACAACAAAACAACAAAACAACAAAACCTCTTAATATTCTGGAGTCATCA
TTCCCTTCGACAGCATTTTCTCTGCTTTGAAAGCCCAGAAATCAGTGTGGCCATGATGACAACCTACAGAAAA
ACCAGAGGCAGCTTCTTTGCCAAGACCTTTCAAAGCCATTTTAGGCTGTTAGGGGCAGTGGAGGTAGAATGACTC
CTTGGGTATTAGAGTTTCAACCATGAAGTCTCTAACAATGTATTTTCTTCACCTCTGCTACTCAAGTAGCATTTA
CTGTGCTTTGGTTTGTGCTAGGCCCCGGGTGTGAAGCACAGACCCCTTCCAGGGGTTTACAGTCTATTGAGA
CTCCTCAGTTCTTGCCACTTTTTTTTTTAATCTCCACCAGTCATTTTTCAGACCTTTTAACTCCTCAATTCCAAC
ACTGATTTCCCTTTTGCATTCTCCCTCCTTCCCTTCTTGTAGCCTTTTGACTTTTATTGGAAATTAGGATGTA
AATCTGCTCAGGAGACCTGGAGGAGCAGAGGATAATTAGCATCTCAGGTTAAGTGTGAGTAATCTGAGAAACAAT
GACTAATTCTTGCATATTTTGTAACTTCCATGTGAGGGTTTTTCAGCATTGATATTTGTGCATTTTCTAAACAGAG
ATGAGGTGGTATCTTCACGTAGAACATTGGTATTCGCTTGAGAAAAAAGAAATAGTTGAACCTATTTCTCTTTCT
TTACAAGATGGGTCCAGGATTCCCTCTTTTCTCTGCCATAAATGATTAATTAATAGCTTTTGTGCTTACATTGG
TAGCCAGCCAGCCAAGGCTCTGTTTAIGCTTTTGGGGGCATATATTGGGTCCATTCTCACCTATCCACACAAC
ATATCCGTATATATCCCTCTACTCTTACTTCCCCCAAATTTAAAGAAGTATGGGAAATGAGAGGCATTTCCCCC
ACCCCATTTCTCTCTCACACACAGACTCATATTACTGGTAGGAACCTTGAGAACTTTATTTCCAAGTTGTTCAA
CATTTACCAATCATATTAATACAATGATGCTATTTGCAATTCTGCTCCTAGGGGAGGGGAGATAAGAAACCCTC
ACTCTCTACAGGTTTGGGTACAAGTGGCAACCTGCTTCCATGGCCGTGTAGAAGCATGGTGGCCCTGGCTTCTCTG
AGGAAGCTGGGGTTCATGACAATGGCAGATGTAAAGTTATTCTTGAAGTCAGATTGAGGCTGGGAGACAGCCGTA
GTAGATGTTCTACTTTGTTCTGCTGTTCTCTAGAAAGAATATTTGGTTTTCTGTATAGGAATGAGATTAATTCC
TTTCCAGGTATTTATAATTCTGGGAAGCAAACCCATGCCTCCCCCTAGCCATTTTACTGTTATCCTATTTAG
ATGGCCATGAAGAGGATGCTGTGAAATTTCCAACAACATTGATGCTGACAGTCATGCAGTCTGGGAGTGGGAA

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FIGURE 44B

GTGATCTTTTGTTCCTCCTCTTTTAGCAGTAAAATAGCTGAGGGAAAAGGGAGGGAAAAGGAAGTTATGG
GAATACCTGTGGTGGTTGTGATCCCTAGGTCTTGGGAGCTCTTGGAGGTGTCTGTATCAGTGGATTTCCCATCCC
CTGTGGGAAATTAGTAGGCTCATTACTGTTTTAGGTCTAGCCTATGTGGATTTTTTCCTAACATACCTAAGCAA
ACCCAGTGTGAGGATGGTAATTCCTATTCTTTTCGTTTCAGTTAAGTTTTCCCTTCATCTGGGCACTGAAGGGATA
TGTGAAACAATGTTAACATTTTGGTAGTCTTCAACCAGGGATTGTTTCTGTTTAACTTCTTATAGGAAAGCTTG
AGTAAAATAAATATTGTCTTTTGTATGTCAAGCGGGCCGCCACCGCGGTGGAAACTCCAGCTT

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FIGURE 45

MEWPARLCGLWALLLCAGGGGGGGAAPTETQPPVTNLSVSVENLCTVIWTWNPPEGASSNCSLWYFSHFQDKQD
KKIAPETRRSIEVPLNERICLQVGSQCSTNESEKPSILVEKCISPPEGDPESAVTELQCIWHNLSYMKCSWLPGR
NTSPDTNYTLYYWHRSLKIHQCENIFREGQYFGCSFDLTQVKDSSFEQHSVQIMVKDNAGKIKPSFNIVPLTSR
VKPDPPHIKNLSFHNDDLYVQWENPQNFISRCLFYEEVNNSQTETHNVFYVQEAKCENPEFERNVENTSCFMVP
GVL PDTLNTVRIRVKTNKLCYEDDKLWSNWSQEMSIGKKRNSTLYITMLLIVPVIVAGAIIVLLLYLKRLKIIIF
PPIPDPGKIFKEMFGDQNDLTLHWKKYDIYEKQTKETDSVVLIENTLKKASQ

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FIGURE 46A

ATTCAGCCGGTGC GCGCGGCGGGAGGCAGTGGCTGGGGAGTCCCGTCGACGCTCTGTTCCGAGAGCGTGCCC
CGGACCGCCAGCTCAGAACAGGGGCGAGCCGTGTAGCCGAACGGAAGCTGGGAGCAGCCGGGACTGGTGGCCCGCG
CCCGAGCTCCGCGAGGCGGGAAGCACCTGGATTGGAAGTCCCGGAGCAGCGCGGCGGCACCTCCCTCACCCA
AGGGGCCGCGCGACGGTCACGGGGCGCGGCCACCGTGAGCGACCCAGGCCAGGATTCTAAATAGACGGCCCA
GGCTCCTCCTCCGCCCCGGCCGCTACCTGCGGGCATTGCCGCGCCGCTCCGCCGGTGTAGACGGCACCTGCG
CCGCTTGCTCGCGGGTCTCCGCCCCCTCGCCACCCTCACTGCGCCAGGCCAGGCAGCTCACCTGTACTGGCGC
GGGCTGCGGAAGCCTGCGTGAGCCGAGGCGTTGAGGCGCGGCGCCACGCCACTGTCCCGAGAGGACGCAGGTGG
AGCGGGCGCGGCTTCGCGGAACCCGGCGCGCGCGCCGCGAGTGGTCCCAGCCTACACCGGGTTCGGGGGACCCGG
CCGCCAGTGCCCGGGAGTAGCCGCGCGCTCGGCTGGGCACCATGAACAGCAGCAGCGCCAACATCACCTACGC
CAGTCGCAAGCGGCGGAAGCCGGTGCAGAAAACAGTAAAGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTC
CAAGCGGCATAGAGACCGACTTAATACAGAGTTGGACCGTTTGGCTAGCCTGCTGCCTTTCCACAAGATGTTAT
TAATAAGTTGGACAACTTTTCAGTTCTTAGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTTCTTTGATGTTGC
ATTAAATCCTCCCTACTGAAAGAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTTAGAGAAGGCCTGAA
CTTACAAGAAGGAGAATTCTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACCTACAGATGCTTTGGTCTT
TTATGCTTCTTCTACTATACAAGATTATCTAGGGTTTTCAGCAGTCTGATGTACATACATCAGAGTGATATGAAC
TATCCATACCGAAGACCGAGCTGAATTTTCAGCGTCAGCTACACTGGGCATTAAATCCTTCTCAGTGTACAGAGTC
TGGACAAGGAATTGAAGAAGCCACTGGTCTCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCTCCAGAA
AACTCTCCTTTAATGGAGAGGTGCTTCATATGTCGCTAAGGTGTCTGCTGGATAATTCATCTGGTTTTCTGGC
AATGAATTTCCAAGGGAAGTTAAAGTATCTTCATGGACAGAAAAAGAAAGGAAAGATGGATCAATACTTCCACC
TCAGTTGGCTTTGTTTGGCATAGCTACTCCACTTCAGCCACCATCCATACTTGAAATCCGGACCAAAATTTTAT
CTTTAGAACCAAAACAACTAGACTTCACACCTATTGGTTGTGATGCCAAAGGAAGAATTGTTTTAGGATATAC
TGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGCAGCTGATATGCTTTATTGTGCCGAGTC
CCATATCCGAATGATTAAGACTGGAGAAAGTGGCATGTATAGTTTTCCGGCTTCTTACAAAAACAACCGATGGAC
TTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAATGGAAGACCAGATTATATCATTGTAACCTCAGAGACCACT
AACAGATGAGGAAGGAACAGAGCATTACGAAAACGAAATACGAAGTTGCCTTTTATGTTTACCCTGGAGAAGC
TGTGTTGTATGAGGCAACCAACCCTTTTCTGCCATAATGGATCCCTTACCCTAAGGACTAAAAATGGCACTAG
TGGAAAAGACTCTGCTACCACATCCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGAT
GCAACAAGATGAGTCTATTTATCTCTATCTGCTTCAAGTACTTCAAGTACTGCACCTTTTGAAAACAACCTTTTT
CAACGAATCTATGAATGAATGCAGAAATTGGCAAGATAATACTGCACCGATGGGAAATGATACTATCCTGAAACA
TGAGCAAATTGACCAGCCTCAGGATGTGAACCTCATTTGCTGGAGGTCAACCAGGGCTCTTTCAAGATAGTAAAA
CAGTGACTTGTACAGCATAATGAAAAACCTAGGCAATTGATTTTGAAGACATCAGACACATGCAGAATGAAAAATT
TTTCAGAAATGATTTTTCTGGTGGAGTTGACTTCAGAGACATTGACTTAACGGATGAAATCCTGACGTATGTCCA
AGATTCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCCTTGGCTCTGAACCTAAGCTG
TATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACCAAAAGCAAGTAGTAGTGGAGCCACAGCA
ACAGCTGTGTCAGAAAGATGAAGCACATGCAAGTTAATGGCATGTTTGAAAAATTGGAACCTTAACCAATTCGTGCC
TTTCAATTGTCCACAGCAAGACCCACAACAATATAATGTCTTTACAGACTTACATGGGATCAGTCAAGAGTTCCC
CTACAAATCTGAAATGGATTCTATGCCTTATACACAGAACTTTATTTCTGTAAATCAGCCTGTATTACCACAACA
TTCCAAATGTACAGAGCTGGACTACCCTATGGGGAGTTTTGAACCATCCCCATACCCACTACTTCTAGTTTGA
AGATTTTGTCACTTGTTTTACAACCTTCTGAAAACCAAAAGCATGGATTAAATCCACAGTCAGCCATAATAACTCC
TCAGACATGTTATGCTGGGGCCGTGTCGATGTATCAGTGCCAGCCAGAACCCTCAGCACACCCACGTGGGTGAGAT
GCAGTACAATCCAGTACTGCCAGGCCAACAGGCATTTTTAAACAAGTTTCAGAATGGAGTTTTAAATGAAACATA
TCCAGCTGAATTAATAACATAAATAACACTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTCAGAAGC
CAGACCTTTTCTGATTTGACATCCAGTGGATTCCGTAAATTCCAAGCCCAATTTTGACCCTGGTTTTTGGATTA
AATTAGTTTGTGAAGGATTATGGAAAAATAAACTGTCAGTGTGGACGTCAGCAAGTTCACATGGAGGCATTGA
TGCATGCTATTACAAATTATTCCAAACCAATTTTAAATTTTGCTTTTAGAAAAGGGAGTTTAAAAATGGTATCA
AAATTACATATACTACAGTCAAGATAGAAAGGGTGTGCCACGGAGTGGTGAGGTACCGTCTACATTTACATTA
TTCTGGGCACCACAAAATATACAAAACCTTTATCAGGGAACTAAGATTCTTTTAAATTAGAAAATATTCTCTATT
TGAATTATTTCTGTCACAGTAAAAATAAAATACTTTGAGTTTTGAGCTACTGGATTCTTATTAGTTCCCCAAATA

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FIGURE 46B

CAAAGTTAGAGAACTAACTAGTTTTTCCTATCATGTTAACCTCTGCTTTTATCTCAGATGTTAAAATAAATGGT
TTGGTGCTTTTTATAAAAAGATAATCTCAGTGCTTTCCTCCTTCACTGTTTCATCTAAGTGCCTCACATTTTTTT
CTACCTATAACACTCTAGGATGTATATTTTATATAAAGTATTCTTTTTCTTTTTTAAATTAATATCTTCTGCAC
ACAAATATTATTTGTGTTTTCTAAATCCAACCAATTTTCATTAATTCAGGCATATTTTAACTCCACTGCTTACCT
ACTTTCTTCAGGTAAAAGGGCAAATAATGATCGAAAAAATAATTATTTATTACATAATTTAGTTGTTTCTAGACT
ATAAATGTTGCTATGTGCCTTATGTTGAAAAAATTTAAAGTAAAATGTCTTCCAAATTATTTCTTAATTATTA
TAAAAATATTAAGACAATAGCACTTAAATTCCTCAACAGTGTTTTTCAGAAGAAATAAATATACCACTCTTACCT
TTATTGATATCTCCATGATGATAGTTGAATGTTGCAATGTGAAAAATCTGCTGTTAACTGCAACCTTGTTTATTA
AATTGCAAGAAGCTTTATTTCTAGCTTTTTTAATTAAGCAAAGCACCCATTTCAATGTGTATAAATTGTCTTTAAA
AACTGTTTTAGACCTATAATCCTTGATAATATATTGTGTTGACTTTATAAATTCGCTTCTTAGAACAGTGGA
CTATGTGTTTTCTCATATTTGAGGAGTGTTAAGATTGCAGATAGCAAGGTTTGGTGCAAAGTATTGTAATGAGT
GAATTGAATGGTGCAATTGTATAGATATAATGAACAAAATTATTTGTAAGATATTTGCAGTTTTTCATTTTAAAA
GTCCATACCTTATATATGCACCTAATTTGTTGGGGCTTTACATACTTTATCAATGTGTCTTTCTAAGAAATCAAG
TAATGAATCCAACCTGCTTAAAGTTGGTATTAATAAAAAGACAACCACATAGTTCGTTTACCTTCAAACCTTAGGT
TTTTTTAATGATATACTGATCTTCATTACCAATAGGCAAATTAATCACCCCTACCAACTTTACTGTCCTAACATGG
ACTTTCAAAAAGAAAAAATGACACCATCTTTTATTCTTTTTTTTTTTTTTTTTTTTGGAGAGAGAGTCTTACTCTGC
CGCCCAAACCTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCTACCTCCTGGGTTCAAGTGATTCTCTTG
CCTCAGCCTCCCGAGTTGCTGGGATTGCGGGCATGGTGCGGTGAGCCTGTAGTCTAGCTACTCGGGAGGCTGAG
GCAGGAGAATAGCCTGAACCTGGGAATCGGAGGTTGCAGGGCCAAGATCGCCCCACTGCACTCCAGCCTGGCAAT
AGACCGAGCTCCGTCTCCAAAAAATAACAATTTTTATTTCTTTTACTTTTTTTTAGTAAGTTAATGTATATA
AAAATGGCTTCGGACAAAATATCTCTGAGTTCTGTGTATTTTCAGTCAAACTTTAAACCTGTAGAATCAATTTA
AGTGTTGAAAAAATTTGTCTGAAACATTTTCATAATTTGTTTCCAGCATGAGGTATCTAAGGATTTAGACCAGAG
GTCTAGATTAATACTCTATTTTTACATTTAAACCTTTTATTATAAGTCTTACATAAACCATTTTTTGTTACTCTCT
TCCACATGTTACTGGATAAATTGTTTAGTGGAATAAGGCTTTTTAATCATGAATATGATGACAATCAGTTATAC
AGTTATAAAATTAAGTTTGAAAAGCAATATTGTATATTTTTATCTATATAAAATAACTAAAATGTATCTAAGA
ATAATAAAATCACGTTAAACC

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FIGURE 47

MNSSSANITYASRKRKPVKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLDKLSVLRLSVS
YLRAKSFFDVALKSSPTERNGGQDNCRAANFREGNLQEGEFLLQALNGFVLVTTDALVFYASSTIQDYLGFFQQ
SDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQIEEATGLPQTVVCYNPDQIPPENSPLMERCFCICRLR
CLLDNSSGFLAMNFQGLKYLHGQKKKGKDGSI LPPQLALFAIATPLQPPSILEIRTKNFI FRTKHKLDFTPIGC
DAKGRIVLGYTEAELCTRGSYGQFIHAADMLYCAESHIRMIKTGESGMIVFRLLTKNNRWTWVQSNARLLYKNGR
PDYIIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATTSTLSKDS
LNPSSLLAAMMQQDESIYLYPASSTSSSTAPFENNFFNESMNECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAG
GHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNEKFFRNDFSGEVDFRDIDLTDEILTYVQDSLSKSPFIPSDYQ
QQQSLALNSSCMVQEHLEQQQHHQKQVVVEPQQQLCQKMKHMQVNGMFENWNSNQFVPFNCPPQDPQQYNVF
TDLHGISEFQPYKSEMDSMPTQNFISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLEDFVTCLQLPENQKH
GLNPQSAIITPQTCYAGAVSMYQCQPEPQH THVGQM QYNPVLPGQQAFLNKFQNGVLNETYPAELNNINNTQTTT
HLQPLHHPSEARPPDLTSSGFL

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FIGURE 48

GGCCCCCTCGAGCCTCGAACCGGAACCTCCAAATCCGAGACGCTCTGCTTATGAGGACCTCGAAATATGCCGGCCA
GTGAAAAAATCTTGTGGCTTTGAGGGCTTTTGGTTGGCCAGGGGCAGTAAAAATCTCGGAGAGCTGACACCAAGT
CCTCCCCCTGCCACGTAGCAGTGGTAAAGTCCGAAGCTCAAATTCGAGAATTGAGCTCTGTTGATTCTTAGAACT
GGGGTTCTTAGAAGTGGTGATGCAAGAAGTTTCTAGGAAAGGCCGGACACCAGTTTTGAGCAAAATTTTGGACT
GTGAAGCAAGGCATTGGTGAAGACAAAATGCGCCTCGCCGGCTGACAGCTGTATCCAGTTCACCCGCCATGCCAGT
GATGTTCTTCTCAACCTTAATCGTCTCCGGAGTCGAGACATCTTGACTGATGTTGTCATTGTTGTGAGCCGTGAG
CAGTTTAGAGCCCATAAAACGGTCCTCATGGCCTGCAGTGGCCTGTTCTATAGCATCTTTACAGACCAGTTGAAA
TGCAACCTTAGTGTGATCAATCTAGATCCTGAGATCAACCTTGAGGGATTCTGCATCCTCCTGGACTTCATGTAC
ACATCTCGGCTCAATTTGCGGGAGGGCAACATCATGGCTGTGATGGCCACGGCTATGTACCTGCAGATGGAGCAT
GTTGTGGACACTTGCCGGAAGTTTATTAAGGCCAGTGAAGCAGAGATGGTTTCTGCCATCAAGCCTCCTCGTGAA
GAGTTCCTCAACAGCCGGATGCTGATGCCCCAAGACATCATGGCCTATCGGGGTCTGTAGGTGGTGGAGAACAAC
CTGCCACTGAGGAGCGCCCTGGGTGTGAGAGCAGAGCCTTTGCCCCAGCCTGTACAGTGGCCTGTCCACACCG
CCAGCCTCTTATTCCATGTACAGCCACCTCCCTGTGAGCAGCCTCCTCTTCTCCGATGAGGAGTTTCGGGATGTC
CGGATGCCTGTGGCCAACCCCTTCCCCAAGGAGCGGGCACTCCCATGTGATAGTGCCAGGCCAGTCCCTGGTGAG
TACAGCCGGCCGACTTTGGAGGTGTCCCCCAATGTGTGCCACAGCAATATCTATTCACCCAAGGAAACAATCCCA
GAAGAGGCACGAAGTGATATGCACTACAGTGTGGCTGAGGGCCTCAAACCTGCTGCCCCCTCAGCCCCGAAATGCC
CCCTACTTCCCTTGTGACAAGGCCAGCAAAGAAGAAGAGAGACCCTCCTCGGAAGATGAGATTGCCCTGCATTTC
GAGCCCCCAATGCACCCCTGAACCGGAAGGGTCTGGTTAGTCCACAGAGCCCCAGAAATCTGACTGCCAGCCC
AACTCGCCCCACAGAGTCTGCAGCAGTAAGAATGCCTGCATCCTCCAGGCTTCTGGCTCCCCTCCAGCCAAGAGC
CCCCTGACCCCAAGCCTGCAACTGGAAGAAATACAAGTTTCATCGTGCTCAACAGCCTCAACCAGAATGCCAAA
CCAGAGGGGGCCTGAGCAGGCTGAGCTGGGCGCCTTCCCCACGAGCCTACACGGCCCCACCTGCCTGCCAGCCA
CCCATGGAGCCTGAGAACCTTGACCTCCAGTCCCCAACCAAGCTGAGTGCCAGCGGGGAGGACTCCACCATCCCA
CAAGCCAGCCGGCTCAATAACATCGTTAACAGGTCCATGACGGGCTCTCCCCGAGCAGCAGCGAGAGCCACTCA
CCACTCTACATGCACCCCCCGAAGTGACGTCTGCGGCTCTCAGTCCCCACAGCATGCAGAGATGTGCCTCCAC
ACCGCTGGCCCCACGTTCCCTGAGGAGATGGGAGAGACCCAGTCTGAGTACTCAGATTCTAGCTGTGAGAACGGG
GCCTTCTCTGCAATGAGTGTGACTGCCGCTTCTCTGAGGAGGCCTCACTCAAGAGGCACACGCTGCAGACCCAC
AGTGACAAACCCTACAAGTGTGACCGTGCCAGGCCTCCTTCCGCTACAAGGGCAACCTCGCCAGCCACAAGACC
GTCCATACCGGTGAGAAACCCTATCGTTGCAACATCTGTGGGGCCAGTTCAACCGGCCAGCCAACCTGAAAACC
CACACTCGAATTCACTCTGGAGAGAAGCCCTACAAATGCGAAACCTGCGGAGCCAGATTGTGACAGGTGGCCAC
CTCCGTGCCCATGTGCTTATCCACACTGGTGAGAAGCCCTATCCCTGTGAAATCTGTGGCACCCGTTTCCGGCAC
CTTCAGACTCTGAAGAGCCACCTGCGAATCCACACAGGAGAGAAACCTTACCATTGTGAGAAGTGTAACTGCAT
TTCCGTACAAAAGCCAGCTGCGACTTCACTTGCGCCAGAAGCATGGCGCCATCACCACCAAGGTGCAATAC
CGCGTGTGAGCCACTGACCTGCCTCCGAGCTCCCCAAAGCCTGTGAAGCATGGAGTGTGATGCTTTCGTCTC
CAGCCCCCTTCTCAGAATCTACCCAAAGGATACTGTAACACTTTACAATGTTTCATCCCATGATGTAGTGCCTCTTT
CATCCACTAGTGCAAAATCATAGCTGGGGGTTGGGGGTGGTGGGGGTCGGGGCCTGGGGGACTGGGAGCCGCAGCA
GCTCCCCCTCCCCACTGCCATAAAACATTAAGAAAATCATATTGCTTCTTCTCCTATGTGTAAGGTGAACCATG
TCAGCAAAAAGCAAAATCATTTTATATGTCAAAGCAGGGGAGTATGCAAAAGTTCTGACTTGACTTTAGTCTGCA
AAATGAGGAATGTATATGTTTTGTGGGAACAGATGTTTCTTTTGTATGTAAATGTGCATTCTTTTAAAGACAAG
ACTTCAGTATGTTGTCAAAGAGAGGGCTTTAATTTTAAACCAAGGTGAAGGAATATATGGCAGAGTTGTAA
TATATAAATATATATATATATAAAATAAATATATAAACCCTAACAAAGATATATTAATAAATAAACTGCGTT
AAAGGCTCGATTTTGTATCTGCAGGCAGACACGGATCTGAGAATCTTTATTGAGAAAGAGCACTTAAGAGAATAT
TTTAAGTATTGCATCTGTATAAGTAAGAAAATATTGCTCTAAAATGCCTCAGTGTATTGTTATTTTTTGCAAG
TGAAGGTTTACAATTTACAAAGTGTGTATTAATAAATAAACAAGAAACAAAAAATCTGCAGAAGGAAAAATGTG
TAATTTTGTCTAGTTTTAGTTTTGTATATACCGTACAACGTGTCCTCACGGTGCCTTTTTTACGGGAAGTTTT
CAATGATGGGCGAGCGTGCACCATCCCTTTTTGAAGTGTAGGCAGACACAGGGACTTGAAGTTGTTACTAATAA
ACTCTCTTTGGGAATGTTTGTCTCATCCATTCTGCGTCATGCTTGTGTTATAACTACTCCGGAGACAGGGTTTG
GCTGTGTCTAAACTGCATTACCGCGTTGTAAAATATAGCTGTACAAATATAAGAATAAAATGTTGAAAAGTCAAA
CTGGAAAAAAA

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FIGURE 49

MASPADSCIQFTRHASDVLLNLRNLRSDILTDVVIVVSREQFRAHKTVLMACSGLFYSIFTDQLKCNLSVINLD
PEINPEGFCILLDFMYTSRLNLRGNIMAVMATAMYLQMEHVVDTCRKFIKASEAEMVSAIKPPREEFLNSRMLM
PQDIMAYRGREVVENNPLRSAPGCESRAFAPSLY SGLSTPPASYS MYSHLPVSSLLFSDEEFRDVRMPVANFFP
KERALPCDSARPVPGEYSRPTLEVSPNVCHSNIYSPKETIPEEARS DMHYSVAEGLKPAAPSARNAPYFPCDKAS
KEEERPSSSEDEIALHFEPNAPLNRKGLVSPQSPQKSDCQPN SPTEACSSKNACILQASGSPPAKSPTDPKACNW
KKYKFIVLNSLNQNAKPGGPEQAELGRLSPRAYTAPPACQPPMEPENLDLQSP TKLSASGEDSTIPQASRLNNIV
NRSMTGSPRSSSESHSPLYMHPPKCTSCGSQSPQHAEMCLHTAGPTFAEEMGETQSEYSDSSCENGAF CNECDC
RFSEEASLKRHTLQTHSDKPYKCDRCQASFRYKGNLASHKTVHTGEKPYRCNICGAQFNRPANLKTHTRIHSGEK
PYKCETCGARFVQVAHLRAHVLIHTGEKPYPC EICGTRFRHLQTLKSHLRIHTGEKPYHCEKCNLHFRHKSQ LRL
HLRQKHGAITNTKVQYRVSATDLPPELPKAC

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FIGURE 50A

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTTAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC
GCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCCTCACCTCTCCCCGAAAACCCCT
ATTTAGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCCTCCCCTTCCAAAAAACAAAAACAGAAAAACCTTTT
CCAGGCCGGGAAAGCAGGAGGGAGAGGGGCCCGGGCTGGCCATGAGCTGCTGTGCCACGAGGTGGACCCGG
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCTGCGAAGCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCCTGCGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGCTGTGTAGGAACAGAAGTGCAGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCCTGCAACTCCTGGGTGCTGTCTGCATGTTTCTGGCCTCCA
AACTCAAAGAGACCAGCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCATCAAGCCTCAGGAGC
TGCTGGAGTGGGAACCTGGTGGTGTGCGGAAGTTGAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGCAGCAAGCTGCCCGAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
TCTGTGGGTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
ATATCGACCTGTGAGGATGCCAGTTGGGCCGAAAGAGAGAGACCGCTCCATAATCTGGTCTCTTCTTCTTTCTGG
TTGTTTTGTCTTTGTGTTTTAGGGTGAACTTAAAAAAATTTCTGCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAAGCATTGTTGCTCTTTTGAAGTACAGC
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAAAGTAATAGTAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTTCATGTT
ATGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAACGTGTACGCCATTTATGGCATGATTAGATTG
CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGAAGGAGTACAAAACAATCTCTCAAC
ATGATTGAACCATTGTTGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT
CTCTACATTAATGTCTCTTGTGTCTACAGTAGCTGTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACA
CAGGTGATTGGCTCCTGGGTTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC
ACCATATTGCTATCTAATGGGGAATGTAGCTATGGGCCATAACCAAACTCACATGAAACGGAGGCAGATGGAG
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTATTGTATTTAAAAGGTAATGTGGCCTTGGCATTCTTCTC
TTAGAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTTGTTATAAACATTCCATT
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC
CTCTTCTCTTTTGCCCCCTCCCTTCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG
TACACAGTTCTGGTGTTCTTACCAGGACTCAAGAGACACCCCTTCTGCTGACATTCCCATCACAACATTCTCA
GACAAGCCTGTAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATCCCATCTCTATACTTCTC
CTTTGGACATGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTTTCC
CTTTCCGTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTCAGCGTACTTGAATTTTTC
TTCTCTCCACTTCTTAGAGGCATTGAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTGCACAA
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAAAATTTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG
CTATTTGAAGAATTATTTTATACACAGATTCTGCC TTGTTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTA
AGGGTCTCTCATTTTTTTAATTTTGTGTTTGTTCAGTTTGGTTTTTTTTTTTTTTTGGCTGCTAAGAAGCTAAAG
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATT
TTATAATATATTATTTTACTGCTTAAATTCCAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA
AAAGCCCTTCCGTAGTTTGTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTTTCTTTTTTGGTTTTTTGG
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT
AACTACAAAAGGCAATGATTCACGCTTTTGTGTTTATAATACCTCACACCGTACAGTTTCTGCTTGGGAGCCCA
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC
CAGGGACCTTTTTGGTTCATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAATAAATA
CATTGAACCAAGGGATCCTCCCTCCCTTCAAAGGCAGAGCTTCAGTACAAACATTTATGCGGTAGGCTCAGATGT
CGTAATTTGCACCTAGGTACCAGGTGTGAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA
TCTTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAGGGCCCTTTCATCTTGAAGTTTTTCCCCTCCGTCTTT

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FIGURE 50B

CCCCCCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCAGATG
AGTCAGTCTCTTGGGAAGTGTGTTTGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCATAGGGGA
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG
GGAACCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAAATTCATTCATGGTGACTGACC
CTTGAGCTTAAACAGAAGCAGCAAAATGAAAGAACC GGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT
ACAGTCTGTAACTTCCACTCTTCTGTAGTCCCGAGGCCCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT
GGGCCTTGTGTGATGATGGGTGTGGGCTGCCGATGGGAAAGTCGGGGGTGTTAGGCTTTTCTGCCTGCTCCT
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTGTTC
GAGGAGCTCTCCCCCTTGGATTTGAACCTGCTCTTTTGTGTGTGTGTCTTTCTCTCTTTTCTTACCTCCC
ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTT
TGTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCC
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAACTCCATGCGGGTCCATAA
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGAGAACACCCCATGCGTGCTGAGAGGCGAGC
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCAT
GCCTTACTACTGGGTATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCTGACAGCATCACGCTGCATCCCATTGCTA
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGACCTTATGTATGTAAATAATTGA
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG
TTGGCTTCTAAGCCAAAAGGATTCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG
AAATTAATGCTGAGATGATAAAGTCCCCTTAAGCCAACAAACCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT
CAAGAGGATATTTATTACTTCTCATACCACATGGCTTTTGTATGATTCTGGATTCTAAACAACCCAGAATGGTCA
TTTCAGGCACAACGATACTACATTTCGTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGC
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCCT
TGAAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTGTGTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA
AATCATCGGGCCATTGGATTTTTTCCATTATGTTTCATCACCTTATATCATGTACCTCAGATCTCTCTCTCTC
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTCTTTTTTTTTTGTCTTAAAA
CAAGTGTGATGCCATATCAAGTCCATGTTATTTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTGGT
CAGGATGTTAGAAAGTGTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAATG
TTGATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGGTCTTATCTGTTTCAAGTGTAAAGTAT
TAAAAAAATAATAACCTGTTTTCTGACTAGTTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT
GCTATTTGGACAATAAACTCACCTTGACCT

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FIGURE 51

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAICGLQQDEEVSSLTC
DALTELLAKITNTDVDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

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FIGURE 52

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTTCTTTCTCCGCTGGAGCAGCTATGGCGGCGGTGAAGACCCT
GAACCCCAAGGCCGAGGTGGCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGGGGTCTGCAGGA
CGTGCTAAGGACCAACCTGGGGCCCAAGGGACCATGAAGATGCTCGTTTTCTGGCGCTGGAGACATCAAACCTTAC
TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAAATCAACACCCAAACAGCTTCCTTAATAGCAAAGGTAGCAAC
AGCCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA
TCTCTACATTTCTGAAGGCCTTCATCCTAGAATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA
GTTTTTGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG
TACTAAAGTTCATGCTGAACCTTGACAGATGCTTAAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA
AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAAGCTTAAT
CAGAGGGCTTGTTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGTGGAGGATGCATACATCCTCAC
TTGTAACGTGTCATTAGAGTATGAGAAAACAGAAGTGAATTCTGGCTTTTTTACAAGAGTGCAGAAGAGAGAGA
AAAACCTCGTGAAAGCTGAAAGAAAATTCATTGAAGATAGGGTTAAAAAAATAATAGAAGTGAAGGAAAGTCTG
TGGCGATTAGATAAAGGATTTGTTGTTATTAATCAAAAGGGAATTGACCCCTTTTCCTTAGATGCTCTTTCAAA
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAATATGGAGAGGCTGACTCTTGCTTGTGGTGGGGTAGC
CCTGAATTCTTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA
AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCTCGTTCTGTCACATTATTGATCAAAGGACCAAATAAGCA
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT
GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCCAGTGTAAGGGCAG
GGCACAGCTTGGAGTCCAAGCATTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAAGTCTGGTTT
TGACCTTCAGGAAACATTAGTTAAATTCAGCAGAACATTGAGAAATCAGGTCAGCTTGTGGGTGTGGACCTGAA
CACAGGTGAGCCAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC
CTGCACTGTGATTGCCACCAACATTCTCTTGGTTGATGAGATCATGCGAGCTGGAATGTCTTCTCTGAAAGGTTG
AATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTGT
CCAAGCTTCAAATAATTTTGAAGAAATTTTCCCATATGAAAAAAGGAGAGAACTGGCATCTGTTGAAATTTG
GAAGTTCTGAAATTATAGTATTTTAAAAATTGCACTGAAGTGTATACACATAAAGCAGGTCTTTTATCCAGTGA
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATTCATGTTAGATAAGCATATGTTACTTACCTTGTATTAT
AATATTTCTTGAAAAGCAAATTTTAAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAACTACCTATTG
TTAAGCATTTGGTTTTTAAATTTTTATGCTAATATAAATGCTCAAGTAATTTAAATATTGAAAGCATCCCTGTT
GGTATAAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAATGCT
CCCGCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA
GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG
AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACTTAAGGCAAAATATTCATCGCAAAGTCTCTAGCGTCATAT
TTTTCTCACCCAAATTACGTTTCCACGAGTTATTAATATAGTTGGTCTATCTCTGCAGTCCTGAAGGTGAAGT
TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA
CCTCAAAA

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FIGURE 53

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTGDGNVLLHEMQIQHPTAS
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEEAKEKALQFLEEVKVSREMDRETLID
VARTSLRTKVHAELADVLTEAVVDSILAIAKKQDEPIDLFMIEIMEMKHKSETDTSIRGLVLDHGARHPDMKKRV
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIELKRKVCSDSDKGFVVINQKGIDPF
SLDALSKEGIVALRRARRNMERLTLACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL
IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV
LAQNSGFDLQETTLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCCTVIATNILLVDEIMRAG
MSSLKG

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FIGURE 54

GACCAGCCTACAGCCGCTGCATCTGTATCCAGCGCCAGGTCCTCGCCAGTCCCAGCTGCGCGCGCCCCCAGTCC
CGCACCCGTTTCGGCCCAGGCTAAGTTAGCCCTCACCATGCCGGTCAAAGGAGGCACCAAGTGCATCAAATACCTG
CTGTTTCGGATTTAACTTCATCTTCTGGCTTGCCGGGATTGCTGTCCTTGCCATTGGACTATGGCTCCGATTTCGAC
TCTCAGACCAAGAGCATCTTCGAGCAAGAACTAAATAATAATTCCAGCTTCTACACAGGAGTCTATATTCTG
ATCGGAGCCGGCGCCCTCATGATGCTGGTGGGCTTCCTGGGCTGCTGCGGGGCTGTGCAGGAGTCCCAGTGCATG
CTGGGACTGTTCTTCGGCTTCCTCTTGGTGATATTGCGCCATTGAAATAGCTGCGGCCATCTGGGGATATTCCAC
AAGGATGAGGTGATTAAAGGAAGTCCAGGAGTTTTACAAGGACACCTACAACAAGCTGAAAACCAAGGATGAGCCC
CAGCGGGAAACGCTGAAAGCCATCCACTATGCGTTGAACTGCTGTGGTTTGGCTGGGGGCGTGGAACAGTTTATC
TCAGACATCTGCCCCAAGAAGGACGTACTCGAAACCTTCACCGTGAAGTCCTGTCCTGATGCCATCAAAGAGGTC
TTCGACAATAAATTCCACATCATCGGCGCAGTGGGCATCGGCATTGCCGTGGTCATGATATTTGGCATGATCTTC
AGTATGATCTTGTGCTGTGCTATCCGCAGGAACCGCGAGATGGTCTAGAGTCAGCTTACATCCCTGAGCAGGAAA
GTTTACCCATGAAGATTGGTGGGATTTTTTGTGTTGTTGTTTGTGTTTGTGTTGTTGTTGTTGTTGTTGTTTGTG
CCACTAATTTTAGTATTCATTCTGCATTGCTAGATAAAAGCTGAAGTTACTTTATGTTTGTCTTTAATGCTTCA
TTCAATATTGACATTTGTAGTTGAGCGGGGGGTTTGGTTTGCTTTGGTTTATATTTTTTCAGTTGTTTGTGTTTGTG
CTTGTTATATTAAGCAGAAATCCTGCAATGAAAGGTACTATATTGCTAGACTCTAGACAAGATATTGTACATAA
AAGAATTTTTTGTCTTTAAATAGATACAAATGTCATCAACTTTAATCAAGTTGTAAGTTATATTGAAGACAAT
TTGATACATAATAAAAAATTATGACAATGTCAAAAAAAAAAAAAA

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FIGURE 55

MPVKGGTKCIKYLFFGFNFIFWLAGIAVLAIGLWLRFDSTKTSIFEQETNNNNSSFYTGVIYILIGAGALMMLVGF
LGCCGAVQESQCMLGLFFGFLLVIFAIEIAAAIWGYSHKDEVIKEVQEFYKDTYNKLTKDEPQRETLKAIHYAL
NCCGLAGGVEQFISDICPKKDVLETFTVKSCPDAIKEVFDNKFHIIGAVGIGIAVVMIFGMIFSMILCCAIRNR
EMV

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FIGURE 56

AGACTCAACAAGAGCTCCAGCAAAGACTTTCACTGTAGCTTGACTTGACCTGAGATTAACTAGGGAATCTTGAGA
ATAAAGATGAGCTCTGAAAATTGTTTCGTAGCAGAGAACAGCTCTTTGCATCCGGAGAGTGGACAAGAAAATGAT
GCCACCAGTCCCCATTTCTCAACACGTCATGAAGGGTCCTTCCAAGTTCCTGTCTGTGCTGTAATGAATGTG
GTCTTCATCACCATTTTAATCATAGCTCTCATTGCCTTATCAGTGGGCCAATACAATTGTCCAGGCCAATACACA
TTCTCAATGCCATCAGACAGCCATGTTTCTTCATGCTCTGAGGACTGGGTTGGCTACCAGAGGAAATGCTACTTT
ATTTCTACTGTGAAGAGGAGCTGGACTTCAGCCCAAAATGCTTGTTCTGAACATGGTGCTACTCTTGCTGTCATT
GATTCTGAAAAGGACATGAACTTTCTAAAACGATACGCAGGTAGAGAGGAACACTGGGTTGGACTGAAAAGGAA
CCTGGTCACCCATGGAAGTGGTCAAATGGCAAAGAATTTAACAACCTGGTTCAACGTTACAGGGTCTGACAAGTGT
GTTTTCTGAAAAACACAGAGGTCAGCAGCATGGAATGTGAGAAGAATTTATACTGGATATGTAACAAACCTTAC
AAATAAATAAGGAAACATGTTCACTTATTGACTATTATAGAA TGGAACCTCAAGGAAATCTGTGTCAGTGGATGCTG
CTCTGTGGTCCGAAGTCTTCCATAGAGACTTTGTGAAAAAAATTTTATAGTGTCTTGGGAATTTTCTTCCAAAC
AGAACTATGGAAAAAAAGGAAGAAATTCAGGAAAATCTGCACTGTGGGCTTTTATTGCCATGAGCTAGAAGCAT
CACAGGTTGACCAATAACCATGCCCAAGAATGAGAAGAATGACTATGCAACCTTTGGATGCACTTTATATTATTT
TGAATCCAGAAATAATGAAATAACTAGGCGTGGACTTACTATTTATTGCTGAATGACTACCAACAGTGAGAGCCC
TTCAATGCATTTGCACTACTGGAAGGAGTTAGATGTTGGTACTAGATACTGAATGTAAACAAAGGAATTATGGCTG
GTAACATAGGTTTTTTAGTCTAATTGAATCCCTTAAACTCAGGGAGCATTTATAAATGGACAAATGCTTATGAAAC
TAAGATTTGTAATATTTCTCTCTTTTTTAGAGAAATTTGCCAATTTACTTTGTTATTTTTCCCCAAAAGAATGGG
ATGATCGTGTATTTATTTTTTTTACTTCCTCAGCTGTAGACAGGTCCTTTTTCGATGGTACATATTTCTTTGCCTTT
ATAATCTTTTATACAGTGTCTTACAGAGAAAAGACATAAGCAAAGACTATGAGGAATATTTGCAAGACATAGAAT
AGTGTTGGAAAATGTGCAATATGTGATGTGGCAAATCTCTATTAGGAAATATTCTGTAATCTTCAGACCTAGAAT
AATACTAGTCTTATAATAGGTTTGTGACTTTCCCTAAATCAATTCTATTACGTGCAATACTTCAATACTTCATTTA
AAATATTTTTATGTGCAATAAAATGTATTTGTTGTATTTTGTGTTTCAGTACAATTATAAGCTGTTTTTATATAT
GTGAAATAAAAGTAGAATAAACACAAAAA AAAAAAAAAAAAAAAAAAAAAA

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FIGURE 57

MSSENCFVAENSSLHPESGQENDATSPHFSTRHEGSFQVPVLCVMNVFITILIIALIALSVGQYNCPGQYTFS
MPSDSHVSSCEDWVG YQRKCYFISTVKRSWTS AQNACSEHGATLAVIDSEKDMNFLKRYAGREEHWVGLKKEPG
HPWKWSNGKEFNW FNV TGSDKCVFLKNTEVSSMECEKNLYWICNKPYK

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FIGURE 58

GACAGCCACGAAGATCCTACCAAAATGAAGCGCTTCCTCTTCCTCCTACTCACCATCAGCCTCCTGGTTATGGTA
CAGATACAAACTGGACTCTCAGGACAAAACGACACCAGCCAAACCAGCAGCCCCTCAGCATCCAGCAGCATGAGC
GGAGGCATTTTCCTTTTCTTCGTGGCCAATGCCATAATCCACCTCTTCTGCTTCAGTTGAGGTGACACGTCTCAG
CCTTAGCCCTGTGCCCCCTGAAACAGCTGCCACCATCACTCGCAAGAGAATCCCCTCCATCTTTGGGAGGGGTTG
ATGCCAGACATCACCAGGTTGTAGAAGTTGACAGGCAGTGCCATGGGGGCAACAGCCAAAATAGGGGGGTAATGA
TGTAGGGGCCAAGCAGTGCCAGCTGGGGGAGAATAAAGTTACCCTTGTA CTGCA

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FIGURE 59

MKRFLFLLLTISLLVMVQIQTGLSGQNDTSQTSSPSASSMSGGIFLFFVANAIHLFCFS

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FIGURE 60

GCGGTGGTGGACACGTCGAGCCGGGTAGAAGTGGAGGGGCCGTTTGAAGAGTCGTGAGGGGGTGACGGGTAAAGA
TTCGGAGAGAGAGGTGCTAGTGGCTGGACTTGACCTGGAAAGAATCTTCTGCTGACTCTCAACTTTTCCTGGAAA
AAATGGATCATTCCCACCATATGGGGATGAGCTATATGGAC TCCAACAGTACCATGCAACCTTCTCACCATCACC
CAACCACTTCAGCCTCACACTCCCATGGTGGAGGAGACAGCAGCATGATGATGATGCCTATGACCTTCTACTTTG
GCTTTAAGAATGTGGAACACTACTGTTTTCCGGTTTTGGTGATCAATACAGCTGGAGAAATGGCTGGAGCTTTTGTGG
CAGTGTTTTTACTAGCAATGTTCTATGAAGGACTCAAGATAGCCGAGAGAGCCTGCTGCGTAAGTCACAAGTCA
GCATTCGCTACAATTCCATGCCTGTCCCAGGACCAAATGGAACCATCCTTATGGAGACACACAAAACCTGTTGGGC
AACAGATGCTGAGCTTTCCCTCACCTCCTGCAAACAGTGCTGCACATCATCCAGGTGGTCATAAGCTACTTCCTCA
TGCTCATCTTCATGACCTACAACGGGTACCTCTGCATTGCAGTAGCAGCAGGGGCCGGTACAGGATACTTCCTCT
TCAGCTGGAAGAAGGCAGTGGTAGTGGATATCACAGAGCATTGCCATTGACATCAAACCTCTATGGCGTGGCCTTA
TCGATTGCAGTGGGAAGTTGTTGAAGACTTGAAGACGTGATTCCCTGCTCCAATCATCCCTTCTTGCTCCTCTTTG
TGCACGTACACACACACACACACACACACACACACACACACCCCTGCTCAACAGAGGTTTAGTTTACAGTCTC
TGAATAAAGTAGTAACCTCCCAAATTGTTTTTTCTAATAAGCTGAGATTCCCATTTCTCTTAAGGAGAAGCCAC
CCATGAGATGTCTTTTCCTTCTCCATCATCTTAGAGCCAAGTTATATGTTCTTGTCTAATCCATGTAGCTTTTTG
TTCAATGACTTGATCATCTGCTTCCTTTTTGAATTTTAAACAGATAGTAAGTAAATTTGGTGGTTTTTCCCTG
GGTCAGTGATGGAAAGGGGTAACTTCAGCCAGGATTGATGGCAGCTGAGGGAAATTTCTTGCCCAACTAAACCCA
GAACTCAAACCTAACATTAGAAAATAAGGTCCAGGGCCGGACACAGTGGCCCATGCCTGTAATCCCAGCACTTTG
GGGGGCCAAGGCAGGCTGGATCACCTGAGGACAGGAGTTCGAGACCAGTCTGGCCAACATGGGGAAACCCCGTCT
CTACTAAAAATACAAAAATTAGCCGGGCATGGTGGTGGGCGCCTGTAATCCCAGCTACTCAGAAGGCTGAGGCAG
GAGAATCACTTGAACCTAGGAGGCGGAGGTTGCAGTGAGCCAAGATGGCGCCATTGCACTCCAGCCTGGGTGACA
AGAGTGAAACTCCATCTCAAAAAAAGAAAAGAAGGTCCAGCTTTTGGATTCAATGAGTGGGAAATACATTGTG
CCTTTCTCTAGATGTGATACGTTATACCAAATCTTTGTAGTGTGCAGAGCGGTGGTTTGAGACTAAATACAGGC
TTAGAACTTGACAGAGTGTGATTCTTGGATGGCTGATGCATCGACTTGCACTTCCCACTTAACACTTTGATTAGCC
ATGAACCTTGCCAATCAAAAAATGACAATCAATTTGAGAAAATAGAAATAGATATTTTTAAATAAAACCATTCA
GTTT

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FIGURE 61

MDHSHHMGMSYMDSNSTMQPSHHHTTSASHSHGGGDSSMMMMPMTFYFGFKNVELLFSGLVINTAGEMAGAFVA
VFLLAMFYEGLKIARESLLRKSQVSI RYNSMPVPGPNGTILMETHKTVGQQLSFPHLLQTVLHI IQVVISYFLM
LIFMTYNGYLCIAVAAGAGTGYFLFSWKKAVVVDI TEHCH

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FIGURE 62

ATGACCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGAGCTGAGATCAGGCACCAGAAGA
GGCTCCCCAGCTGTAACCTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA
CAGCCATGGGTTATTAGTGCATCAGAAATACACACCGTTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTG
AATGAACGTCTCTGATGTGCCTGGTGTTCCTCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT
GGAACAATCCAGATTTCTAACCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAACAATGACAAATTCAGGA
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAA
TGTCTTGAAATCGTGTGGCTGTGCTTGAAACCAAAACAAGACTCTCATTGAGGAACCTCAAGGCCCTCAAAGAT
CTTTATTGCCATAAAGTAGAGTAACTGTCTTTGACTTGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTGTTG
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT
TGTCAATAGCATGCAAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTCAGGGAAGCTGCCAAAGAATGTC
GACGTCGAAAGAAAGAATATGTAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA
TAGAGGAACCTGAAACCTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAAGTATG
TACAGA

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FIGURE 63

MTMETVESQHDGSITASLTESKSAHVQTQTGQISIPALAQCSSELRSRGSPAVTLVQLPSGQTIHVQGVQTP
QPWVIQSSEIHTVQVAAIAETDESAESEGVIDSHKRREILSRRPSYRKILNELSSDVPGVPKIEERSEEEGTPP
SIATMAVPTSIYQTSTGQYIAIAQGGTIQISNPGSDGVQGLQALMTNSGAPPPGATIVQYAAQSADGTQQFFVP
GSQVVVQAATGDMPTYQIRAPTAALPQGVVMAASPSGLHSPQQLAEEATRRELRLMKNREAARECRRKKKEYVK
CLENRVAVLENQNKTLEELKALKDLYCHKVE

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FIGURE 64

TCCAGTGACGGAGCCGCCCGGCCGACAGCCCCGAGACGACAGCCCGGCGCGTCCCGGTCCCCACCTCCGACCACC
GCCAGCGCTCCAGGCCCCGCGCTCCCCGCTCGCCGCCACCGCGCCCTCCGCTCCGCCCCGAGTGCCAACCATGAC
CGCCGCCAGTATGGGCCCCGTCCGCGTTCGCTTCTGTTGCTCTCTCGCCCTCTGCAGCCGGCCGGCGTTCGGCCA
GAACTGCAGCGGGCCGTGCCGGTGCCCGGACGAGCCGGCGCCGCGTGCCTCGGGCGGGCGTGAGCCTCGTGCTGGA
CGGCTGCGGCTGCTGCCGCGTCTGCGCCAAGCAGCTGGGCGAGCTGTGCACCGAGCGCGACCCCTGCGACCCGCA
CAAGGGCCTCTTCTGTGACTTCGGCTCCCCGGCCAACCGCAAGATCGGCGTGTGCACCGCCAAAGATGGTGCTCC
CTGCATCTTCGGTGGTACGGTGTACCGCAGCGGAGAGTCTTCCAGAGCAGCTGCAAGTACCAGTGACGTGCCT
GGACGGGGCGGTGGGCTGCATGCCCTGTGCAGCATGGACGTTCTGCTGCCCCAGCCCTGACTGCCCTTCCCGAG
GAGGGTCAAGCTGCCCCGGGAAATGCTGCGAGGAGTGGGTGTGTGACGAGCCCAAGGACCAACCGTGGTTGGGCC
TGCCCTCGCGGCTTACCGACTGGAAGACACGTTTGGCCAGACCCAACTATGATTAGAGCCAACTGCCTGGTGCA
GACCACAGAGTGGAGCGCTGTTCAGACCTGTGGGATGGGCATCTCCACCCGGGTACCAATGACAACGCCTC
CTGCAGGCTAGAGAAGCAGAGCCGCTGTGCATGGTCAGGCCTTGCGAAGCTGACCTGGAAGAGAACATTAAGAA
GGGCAAAAGTGATCCGTACTCCCAAAATCTCCAAGCCTATCAAGTTTGAGCTTTCTGGCTGCACCAGCATGAA
GACATACCGAGCTAAATCTGTGGAGTATGTACCGACGGCCGATGCTGCACCCCCACAGAACCCACCACCTGCC
GGTGGAGTTCAAGTGCCCTGACGGCGAGGTCATGAAGAAGAATGATGTTTCATCAAGACCTGTGCCTGCCATTA
CAACTGTCCCGGAGACAATGACATCTTTGAATCGTGTACTACAGGAAGATGTACGGAGACATGGCATGAAGCCA
GAGAGTGAGAGACATTAACCTAGTACTGGAAGTGAAGTATTACATCTCATTTTTCCGTAAAAATGATTTT
AGTAGCACAAGTTATTTAAATCTGTTTTCTAACTGGGGGAAAAGATTCCACCCAAATCAAAACATTGTGCCAT
GTCAAACAAATAGTCTATCTTCCCCAGACACTGGTTTTGAAGAATGTTAAGACTTGACAGTGGAAGTACATTAGTA
CACAGCACCAGAATGTATATTAAGGTGTGGCTTTAGGAGCAGTGGGAGGGTACCAGCAGAAAGGTTAGTATCATC
AGATAGCTCTTATACGAGTAATATGCCCTGCTATTTGAAGTGTAAATTGAGAAGGAAAATTTAGCGTGCTCACTGA
CCTGCCTGTAGCCCCAGTGACAGCTAGGATGTGCATTCTCCAGCCATCAAGAGACTGAGTCAAGTTGTTCTTAA
GTCAGAACAGCAGACTCAGCTCTGACATTCTGATTGCAATGACACTGTTTCAGGAATCGGAATCCTGTCGATTAGA
CTGGACAGCTTGTGGCAAGTGAATTTCTGTAAACAAGCCAGATTTTTTAAATTTATATTGTAAATATTGTGTGT
GTGTGTGTGTGTATATATATATATATATGTACAGTTATCTAAGTTAATTTAAAGTTGTTTGTGCCTTTTTTATT
TTTGTTTTTAAATGCTTTGATATTTCAATGTTAGCCTCAATTTCTGAACACCATAGGTAGAATGTAAAGCTTGCT
GATCGTTCAAAGCATGAAATGGATACTTATATGGAAATCTCTCAGATAGAATGACAGTCCGTCAAAACAGATTG
TTTGCAAAGGGGAGGCATCAGTGTCTTGGCAGGCTGATTTCTAGGTAGGAAATGTGGTAGCTCACGCTCACTTT
TAATGAACAAATGGCCTTTATTAATAAACTGAGTGACTCTATATAGCTGATCAGTTTTTTACCTGGAAGCATTTG
TTTCTACTTTGATATGACTGTTTTTCGGACAGTTTATTTGTTGAGAGTGTGACCAAAAGTTACATGTTTGCACCT
TTCTAGTTGAAAATAAAGTATATTTTTTCTAAAAAATAAAGTACGACAGCAACGGAATTC

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FIGURE 65

MTAASMGPVRVAFVLLALCSRPAVGQNC SGPCRC PD E P A R C P A G V S L V L D G C G C C R V C A K Q L G E L C T E R D P C D
P H K G L F C D F G S P A N R K I G V C T A K D G A P C I F G G T V Y R S G E S F Q S S C K Y Q C T C L D G A V G C M P L C S M D V R L P S P D C P F
P R R V K L P G K C C E E W C D E P K D Q T V V G P A L A A Y R L E D T F G P D P T M I R A N C L V Q T T E W S A C S K T C G M G I S T R V T N D N
A S C R L E K Q S R L C M V R P C E A D L E E N I K K G K K C I R T P K I S K P I K F E L S G C T S M K T Y R A K F C G V C T D G R C C T P H R T T T
L P V E F K C P D G E V M K K N M M F I K T C A C H Y N C P G D N D I F E S L Y Y R K M Y G D M A

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FIGURE 66

GCCCCGCCGCCGGCAGTGGACCGCTGTGCGCGAACCTGAACCTACGGTCCCGACCCGCGGGCGAGGCCGGGTA
CCTGGGCTGGGATCCGGAGCAAGCGGGCGAGGGCAGCGCCCTAAGCAGGCCCGGAGCGATGGCAGCCTTGATGAC
CCCGGGAACCGGGGCCCCACCCGCGCCTGGTGACTTCTCCGGGAAGGGAGCCAGGGACTTCCCGACCCCTTCGCC
AGAGCCCAAGCAGCTCCCGGAGCTGATCCGCATGAAGCGAGACGGAGGCCCGCTGAGCGAAGCGGACATCAGGGG
CTTCGTGGCCGCTGTGGTGAATGGGAGCGCGCAGGGCGCACAGATCGGGGCCATGCTGATGGCCATCCGACTTCG
GGGCATGGATCTGGAGGAGACCTCGGTGCTGACCCAGGCCCTGGCTCAGTCGGGACAGCAGCTGGAGTGGCCAGA
GGCCTGGCGCCAGCAGCTTGTGGACAAGCATTCCACAGGGGGTGTGGGTGACAAGGTCAGCCTGGTCCTCGCACC
TGCCCTGGCGGCATGTGGCTGCAAGGTGCCAATGATCAGCGGACGTGGTCTGGGGCACACAGGAGGCACCTTGGA
TAAGCTGGAGTCTATTCTTGATTCAATGTCATCCAGAGCCCAGAGCAGATGCAAGTGCTGCTGGACCAGGCCGG
CTGCTGTATCGTGGGTGAGAGTGAGCAGCTGGTTCCTGCGGACGGAATCCTATATGCAGCCAGAGATGTGACAGC
CACCGTGGACAGCCTGCCACTCATCACAGCCTCCATTCTCAGTAAGAACTCGTGGAGGGGCTGTCCGCTCTGGT
GGTGGACGTTAAGTTCGGAGGGGGCCCGCTCTTCCCAACCAGGAGCAGGCCCGGGAGCTGGCAAAGACGCTGGT
TGGCGTGGGAGCCAGCCTAGGGCTTCGGGTGCGGGCAGCGCTGACCGCCATGGACAAGCCCCCTGGGTGCTGCGT
GGGCCACGCCCTGGAGGTGGAGGAGGCGCTGCTCTGCATGGACGGCGCAGGCCCGCCAGACTTAAGGGACCTGGT
CACCACGCTCGGGGGCGCCCTGCTCTGGCTCAGCGGACACGCGGGGACTCAGGCTCAGGGCGCTGCCCGGGTGGC
CGCGGCGCTGGACGACGGCTCGGCCCTTGGCCGCTTCGAGCGGATGCTGGCGGCGCAGGGCGTGGATCCCGGTCT
GGCCCGAGCCCTGTGCTCGGGAAGTCCCGCAGAACGCCGGCAGCTGCTGCCTCGCGCCCGGGAGCAGGAGGAGCT
GCTGGCGCCCGCAGATGGCACCCTGGAGCTGGTCCGGGCGCTGCCGCTGGCGCTGGTGCTGCACGAGCTCGGGGC
CGGGCGCAGCCGCGCTGGGGAGCCGCTCCGCCCTGGGGGTGGGCGCAGAGCTGCTGGTGCAGCTGGGTGAGAGGCT
GCGCCGTGGGACCCCTGGCTCCGCGTGCACCGGGACGGCCCCGCGCTCAGCGGCCCGCAGAGCCGCGCCCTGCA
GGAGGCGCTCGTACTCTCCGACCGCGGCCATTGCGCGCCCCCTCGCCCTTCGCAGAGCTCGTTCTGCCGCCGCA
GCAATAAAGCTCCTTTGCCGCGAAA

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FIGURE 67

MAALMTPGTGAPPAPGDFSGEGSQGLPDPSPPEPKQLPELIRMKRDGGRLSEADIRGFVAADVNGSAQGAQIGAML
MAIRLRGMDLEETSVLTQALAQSGQOLEWPEAWRQQQLVDKHSTGGVGDVSLVLAPALAACGCKVPMISGRGLGH
TGGTLDKLESIPGFNVIQSPEQMQLLDQAGCCIVGQSEQLVPADGILYAARDVTATVDSLPLITASILSKKLVE
GLSALVVDVKFGGAAVFPNQEQARELAKTLVGVGASLGLRVAAALTAMDKPLGRCVGHAEVEEALLCMDGAGFP
DLRDLVTTLGGALLWLSGHAGTQAQGAARVAAALDDGSALGRFERMLAAQGVDPGLARALCSGSPAERRQLLPRA
REQEELLAPADGTVELVRALPLALVLHELGAAGRSRAGEPLRLGVGAELLVDVGQRLRRGTPWLRVHRDGPALSGP
QSRALQEALVLSRAPFAAPSPFAELVLPQQ

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FIGURE 68

AGTGGCTCTACTTTTCAGAAGAAAGTGTCTCTCTTCTGCTTAAACCTCTGTCTCTGACGGTCCCTGCCAATCGCT
CTGGTCGACCCCAACACACTAGGAGGACAGACACAGGCTCCAACTCCACTAACCAGAGCTGTGATTGTGCCCCG
TGAGTGGACTGCGTTGTGAGGGAGTGAGTGCTCCATCATCGGGAGAATCCAAGCAGGACCGCCATGGAGGAAGGT
CAATATTTCAGAGATCGAGGAGCTTCCCAGGAGGCGGTGTTGCAGGCGTGGGACTCAGATCGTGCTGCTGGGGCTG
GTGACCGCCGCTCTGTGGGCTGGGCTGCTGACTCTGCTTCTCCTGTGGCACTGGGACACCACACAGAGTCTAAAA
CAGCTGGAAGAGAGGGCTGCCCCGAACGTCTCTCAAGTTTCCAAGAACTTGGAAGCCACCACGGTGACCAGATG
GCGCAGAAATCCCAGTCCACGCAGATTTACAGGAACTGGAGGAACTTCGAGCTGAACAGCAGAGATTGAAATCT
CAGGACTTGGAGCTGTCTTGGAACCTGAACGGGCTTCAAGCAGATCTGAGCAGCTTCAAGTCCCAGGAATTGAAC
GAGAGGAACGAAGCTTCAGATTTGCTGGAAGACTCCGGGAGGAGGTGACAAAGCTAAGGATGGAGTTGCAGGTG
TCCAGCGGCTTTGTGTGCAACACGTGCCCTGAAAAGTGGATCAATTTCCAACGGAAGTGCTACTACTTCGGCAAG
GGCACCAGCAGTGGGTCCACGCCCCGGTATGCCTGTGACGACATGGAAGGGCAGCTGGTCAGCATCCACAGCCCG
GAGGAGCAGGACTTCCTGACCAAGCATGCCAGCCACACCGGCTCCTGGATTGGCCTTCGGAAGTTGGACCTGAAG
GGAGAGTTTATCTGGGTGGATGGGAGCCATGTGGACTACAGCAACTGGGCTCCAGGGGAGCCCACCAGCCGGAGC
CAGGGCGAGGACTGCGTGATGATGCGGGGCTCCGGTTCGCTGGAACGACGCCTTCTGCGACCGTAAGCTGGGCGCC
TGGGTGTGCGACCGGCTGGCCACATGCACGCCGCCAGCCAGCGAAGGTTCCGCGGAGTCCATGGGACCTGATTCA
AGACCAGACCCTGACGGCCGCTGCCACCCCTCTGCCCCCTCTCCACTCTTGAGCATGGATACAGCCAGGCCCA
GAGCAAGACCCTGAAGACCCCAACCACGGCCTAAAAGCCTCTTTGTGGCTGAAAGGTCCCTGTGACATTTTCTG
CCACCCAAACGGAGGCAGCTGACACATCTCCCGCTCCTCTATGGCCCCTGCTTCCCAGGAGTACACCCCAACAG
CACCCTCTCCAGATGGGAGTGCCCCCAACAGCACCTCTCCAGATGAGAGTACACCCCAACAGCACCTCTCCAG
ATGCAGCCCCATCTCCTCAGCACCCCAAGGACCTGAGTATCCCCAGCTCAGGTGGTGAGTCCTCCTGTCCAGCCTG
CATCAATAAAATGGGGCAGTGATGGCCTCC

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FIGURE 69

MEEGQYSEIEELPRRRCCRRGTQIVLLGLVTAALWAGLLTLLLLLWHWDTTQSLKQLEERAARNVSQVSKNLESHH
GDQMAQKSQSTQISQEEELRAEQQLKSQDLELSWNLNGLQADLSSFKSQELNERNEASDLLERLREEVTKLRM
ELQVSSGFVCNTCPEKWINFQRKCYFFGKGTKQVWHARYACDDMEGQLVSIHSPEEQDFLTKHASHTGSWIGLRN
LDLKGEFIWVDGSHVDYSNWAPGEPTSRSQGEDCVMMRGSGRWNDAFCDRKLGAWVCDRLATCTPPASEGSAESM
GPDSRPDPDGRLPSPAPLHS

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FIGURE 70

AGACAATTTTCAGCAGGAAGAAGTAGAAAGGATAAAATGGATCCTGCACCACGGGAACCTCACAGCACCTCACTT
CTTTTGGTTTTCTTTCTTTTGGGGCACCTCTGGACTCACTCCCCAGCATGAAGGCGCTGAGCCCGGTGCGCGGC
TGCTACGAGGCGGTGTGCTGCCTGTCGGAACGCAGTCTGGCCATCGCCGGGGCCGAGGGAAGGGCCCGGCAGCT
GAGGAGCCGCTGAGCTTGCTGGACGACATGAACCACTGCTACTCCCGCTGCGGGAACCTGGTACCCGGAGTCCCG
AGAGGCACTCAGCTTAGCCAGGTGGAAATCCTACAGCGCGTCATCGACTACATTCTCGACCTGCAGGTAGTCCTG
GCCGAGCCAGCCCCCTGGACCCCCCTGATGGCCCCCACCTTCCCATCCAGACAGCCGAGCTCGCTCCGGAACCTTGTC
ATCTCCAACGACAAAAGGAGCTTTTGCCACTGACTCGGCCGTGTCCTGACACCTCCAGAACGCAGGTGCTGGCGC
CCGTTCTGCCTGGGACCCCGGGAACCTCTCCTGCCGGAAGCCGGACGGCAGGGATGGGCCCCAACTTCGCCCTGC
CCACTTGACTTCACCAAATCCCTTCCTGGAGACTGAACCTGGTGCTCAGGAGCGAAGGACTGTGAACCTTGTTGCC
TGAAGAGCCAGAGCTAGCTCTGGCCACCAGCTGGGCGACGTCACCCTGCTCCACCCCAAGTTCTAAGGT
CTTTTCAGAGCGTGGAGGTGTGGAAGGAGTGGCTGCTCTCAAACCTATGCCAAGGCGGCGGCAGAGCTGGTCTTC
TGGTCTCCTTGGAGAAAGGTTCTGTGGCCCTGATTTATGAACTCTATAATAGAGTATATAGGTTTTGTACCTTTT
TTACAGGAAGGTGACTTTCTGTAACAATGCGATGTATATTAACTTTTTATAAAAGTTAACATTTTGCATAATAA
ACGATTT

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FIGURE 71

MDPAPREPHSTSLLLVFFLFGAPLDSLPSMKALSPVRGCYEAVCCLSERSLAIARGRGKGPAAEEPLSLDDMNH
CYSRLRELVPGVPRGTQLSQVEILQRVIDYILDQLQVVLAEPAPGPPDGPHLPIQTAEAPELVISNDKRSFCH

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FIGURE 72A

GGCGGGAGCGCGTGCGCCCGAGGACCCGGCCGGAAGGCTTGCGCCAGCTCAGGATGAGGACAGGCTGGGCGACCC
CTCGCCGCCCGGCGGGGCTCCTCATGCTGCTCTTCTGGTTCTTCGATCTCGCGGAGCCCTCTGGCCGCGCAGCTA
ATGACCCCTTCACCATCGTCCATGGAAATACGGGCAAGTGCATCAAGCCAGTGTATGGCTGGATAGTAGCAGACG
ACTGTGATGAAACTGAGGACAAGTTATGGAAGTGGGTGTCCCAGCATCGGCTCTTTCATTTGCACTCCCAAAAGT
GCCTTGCCCTCGATATTACCAAATCGGTAATGAGCTGAGAATGTTTCAGCTGTGACTCCAGTGCCATGCTGTGGT
GGAAATGTGAGCACCCTCTCTGTACGGAGCTGCCCGGTACCGGCTGGCTCTGAAGGATGGACATGGCACAGCAA
TCTCAAATGCATCTGATGTCTGGAAGAAAGGAGGCTCAGAGGAAAGCCTTTGTGACCAGCCTTATCATGAGATCT
ATACCAGAGATGGGAACTCTTATGGGAGACCTTGTGAATTTCCATTCTTAATTGATGGGACCTGGCATCATGATT
GCATTCTTGATGAAGATCATAGTGGGCCATGGTGTGCCACCACCTTAAATTATGAATATGACCGAAAGTGGGGCA
TCTGCTTAAAGCCTGAAAACGGTTGTGAAGATAATTGGGAAAAGAACGAGCAGTTTGGAAAGTTGCTACCAATTTA
ATACTCAGACGGCTCTTCTTGGAAAGAAGCTTATGTTTCATGTGAGAATCAAGGAGCTGATTTACTGAGCATCA
ACAGTGTCTGAATTAACCTTAAAGAAAAAGAAGGCATTGCTAAGATTTTCTGGATTGGTTTAAATCAGC
TATACTCTGCTAGAGGCTGGGAATGGTCAGACCACAAACCATTAAACTTTCTCAACTGGGATCCAGACAGGCCCA
GTGCACCTACTATAGGTGGCTCCAGCTGTGCAAGAATGGATGCTGAGTCTGGTCTGTGGCAGAGCTTTTCTGTG
AAGCTCAACTGCCCTATGTCTGCAGGAAACCATTAAATAATACAGTGGAGTTAACAGATGTCTGGACATACTCAG
ATACCCGCTGTGATGCAGGCTGGCTGCCAATAATGGATTTTGTCTATCTGCTGGTAAATGAAAGTAATTCCTGGG
ATAAGGCACATGCGAAATGCAAAGCCTTCAGTAGTGACCTAATCAGCATTCTCTTAGCAGATGTGGAGGTGG
TTGTCAAAAACCTCCATAATGAGGATATCAAAGAAGAAGTGTGGATAGGCCTTAAGAACATAAACATACCAACTT
TATTTAGTGGTCAGATGGTACTGAAGTTACTCTAACATATTGGGATGAGAATGAGCCAAATGTTCCCTACAATA
AGACGCCCAACTGTGTTTCTTACTTAGGAGAGCTAGGTGAGTGGAAAGTCCAATCATGTGAGGAGAACTAAAAT
ATGTATGCAAGAGAAAGGGAGAAAACTGAATGACGCAAGTTCTGATAAGATGTGTCTCCAGATGAGGGCTGGA
AGAGACATGGAGAAACCTGTTACAAGATTTATGAGGATGAGGTCCCTTTTGGAAACAACTGCAATCTGACTATCA
CTAGCAGATTTGAGCAAGAATACCTAAATGATTTGATGAAAAAGTATGATAAATCTCTAAGAAAATACCTCTGGA
CTGGCCTGAGAGATGTAGATTCTTGTGGAGAGTATAACTGGGCAACTGTTGGTGGAAAGAGCGGGCTGTAACCT
TTTCCAACCTGGAATTTTCTTGAGCCAGCTTCCCCGGGCGGCTGCGTGGCTATGTCTACTGGAAAGTCTGTTGGAA
AGTGGGAGGTGAAGGACTGCAGAAGCTTCAAAGCACTTTCAATTTGCAAGAAAATGAGTGGACCCCTTGGGCCTG
AAGAAGCATCCCCTAAGCCTGATGACCCCTGTCTGAAGGCTGGCAGAGTTTCCCCGCAAGTCTTTCTTGTTATA
AGGTATTCCATGCAGAAAGAATTGTAAGAAAGAGGAAGTGGGAAGAAGCTGAACGATTCTGCCAAGCCCTTGGAG
CACACCTTTCTAGCTTCAGCCATGTGGATGAAATAAAGGAATTTCTTCACTTTTAAACGGACCAGTTCAGTGGCC
AGCATTGGCTGTGGATTGGTTTGAATAAAAGGAGCCAGATTTACAAGGATCCTGGCAATGGAGTGATCGTACAC
CAGTGTCTACTATTATCATGCCAAATGAGTTTCAGCAGGATTATGACATCAGAGACTGTGCTGCTGTCAAGGTAT
TTCATAGGCCATGGCGAAGAGGCTGGCATTCTATGATGATAGAGAATTTATTTATTTGAGGCCCTTTGCTTGTG
ATACAAAACCTTGAATGGGTGTGCCAAATTCAAAAGGCCGTACTCCAAAACACCAGACTGGTACAATCCAGACC
GTGCTGGAATTCATGGACCTCCACTTATAATTGAAGGAAGTGAATATTGGTTTGTGCTGATCTTCACCTAAACT
ATGAAGAAGCCGCTCTGTACTGTGCCAGCAATCACAGCTTCTTGCAGCTATAACATCTTTTGTGGGACTAAAAG
CCATCAAAAACAAAATAGCAAATATATCTGGTGATGGACAGAAGTGGTGGATAAGAATTAGCGAGTGGCCAATAG
ATGATCATTTTACATACTCACGATATCCATGGCACCGCTTTCCTGTGACATTTGGAGAGGAATGCTTGTACATGT
CTGCCAAGACTTGGCTTATCGACTTAGGTAAACCAACAGACTGTAGTACCAAGTTGCCCTTCATCTGTGAAAAAT
ATAATGTTTCTTCGTTAGAGAAATACAGCCCAGATTCTGCAGCTAAAGTGCAATGTTCTGAGCAATGGATTCTT
TTCAGAATAAGTGTCTTCTAAAGATCAAACCCGTGTCTCTCACATTTTCTCAAGCAAGCGATACCTGTCACTCCT
ATGGTGGCACCCCTTCTTCAGTGTGAGCCAGATTGAACAAGACTTTATTACATCCTTGCTTCCGGATATGGAAG
CTACTTTATGGATTGGTTTGCCTGAGTGCCTATGAAAAGATAAACAAATGGACAGATAACAGAGAGCTGACGT
ACAGTAACTTTACCCATTATTGGTTAGTGGGAGGCTGAGAATACCAGAAAATTTTTTGGAGGAAGAGTCTCGCT
ACCACTGTGCCCTAATACTCAACCTCCAAAATCACCCTTACTGGGACGTGGAATTTTACATCCTGCAGTGAAC
GCCACTTTGTGTCTCTGTGTCAGAAATATTGAGAAGTTAAAGCAGACAGACGTTGAGAATGCTTCAGAACTG
TAAAGTATCTAAATAATCTGTACAAAATAATCCCAAAGACTCTGACTTGGCACAGTGCTAAAAGGGAGTGTCTGA
AAAGTAACATGCAGCTGGTGGATCATCAGGACCCCTTACCAGCAGGCATTCTCAGTGTGAGGCGCTCCTTCACA
ACTCTTCTTATGGATCGGACTCTTCAGTCAAGATGATGAACCTCAACTTTGGTTGGTTCAGATGGGAAACGTCTTC

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FIGURE 72B

ATTTTAGTCGCTGGGCTGAACTAATGGGCAACTCGAAGACTGTGTAGTATTAGACACTGATGGATTCTGGAAAA
CAGTTGATTGCAATGACAATCAACCAGGTGCTATTTGCTACTATTCAGGAAATGAGACTGAAAAAGAGGTCAAAC
CAGTTGACAGTGTTAAATGTCCATCTCCTGTTCTAAATACTCCGTGGATACCATTTTCAAGAACTGTTGCTACAATT
TCATAATAACAAAGAATAGGCATATGGCAACAACACAGGATGAAGTTCATACTAAATGCCAGAACTGAATCCAA
AATCACATATTCTGAGTATTCGAGATGAAAAGGAGAATAACTTTGTTCTTGAGCAACTGCTGTACTTCAATTATA
TGGCTTCATGGGTCATGTTAGGAATAACTTATAGAAATAATTCTCTTATGTGGTTTGATAAGACCCCACTGTCTAT
ATACACATTGGAGAGCAGGAAGACCAACTATAAAAAATGAGAAGTTTTTGGCTGGTTTAAGTACTGACGGCTTCT
GGGATATTCAAACCTTTAAAGTTATTGAAGAAGCAGTTTATTTTACCAGCACAGCATTCTTGCTTGTAATAATTG
AAATGGTTGACTACAAAGAAGACATAATACTACACTGCCACAGTTTATGCCATATGAAGATGGTATTTACAGTG
TTATTCAAAAAAGGTAACATGGTATGAAGCATTAAACATGTGTTCTCAAAGTGGAGGTCACCTGGCAAGCGTTT
ACAACCAAAATGGCCAGCTCTTTCTGGAAGATATTGTAACCGTGATGGATTTCCTACTATGGGTTGGGCTCTCAA
GTCATGATGGAAGTGAATCAAGTTTTGAATGGTCTGATGGTAGTACATTTGACTATATCCCATGGAAAGGCCAAA
CATCTCCTGGAAATTGTGTTCTCTTGATCCAAAAGGAAGTTGGAAACATGAAAAATGCAACTCTGTTAAGGATG
GTGCTATTTGTTATAAACCTACAAAATCTAAAAAGCTGTCCCGTCTTACATATTCATCAAGATGTCCAGCAGCAA
AAGAGAATGGGTCACGGTGGATCCAGTACAAGGGTCACTGTTACAAGTCTGATCAGGCATTGCACAGTTTTTTCAG
AGGCCAAAAAATTGTGTTCAAACATGATCACTCTGCAACTATCGTTTTCCATAAAAGATGAAGATGAGAATAAAT
TTGTGAGCAGACTGATGAGGGAAAATAATAACATTACCATGAGAGTTTTGGCTTGGATTATCTCAACATTCTGTTG
ACCAGTCTTGGAGTTGGTTAGATGGATCAGAAGTGACATTTGTCAAATGGGAAAATAAAAGTAAGAGTGGTGTG
GAAGATGTAGCATGTTGATAGCTTCAAATGAACTTGGAAAAAGTTGAATGTGAACATGGTTTTTGAAGAGTTG
TCTGCAAAGTGCCCTCTGGGCCCTGATTACACAGCAATAGCTATCATAGTTGCCACACTAAGTATCTTAGTTCTCA
TGGGCGGACTGATTTGGTTCCCTCTTCCAAAGGCACCGTTTTGCACCTGGCGGGTTTCTCATCAGTTCGATATGCAC
AAGGAGTGAATGAAGATGAGATTATGCTTCCTTCTTCCATGACTAAATTCTCTTAAAGTTTTCTAATTTGCAC
TAATGTGGTTATGGAGAAATTAGTCACTTAAATGTCCAGTGTCAGTATTTACTCTGCTCCAAAGTAGAACTCT
TAAATACTTTTTTCAAGTTGTTTAGATCTTAGGCATGTGCTGGTATCCACAGTTAATCCCTGCTAAATGCCATGTT
TATCACCTTAATTAATAGAATGGAGGGGACTCCAAAGCTGGAAGTGAAGTCCAAATTGTTTGTACAGTAATATGT
TTAATGTTTCAATTTTCTCTGTATGAATGTGATTGGTAACTAGGATATGTATATTTAATAGAATTTTAAACAAAC
TTCTTAGAAAAATTAATAAGGCATATTACTAGGTGACATGTCTACTTTTAAATTTTAAAGAGCATCCGGCCAAAT
GCAAAATTAGTACCTCAAAGTAAAAATTGAAGTGAAGTCTATCAGCATTGTTTCAAATAGTCATTTTATAGCA
CTGGGGAAAAATAACAATAAGACATGCTTACTTTTAAATTTTATTTTTTTGAGACTGAGTCTCTCTCTGTTGC
CCAGGCTGGAGTACAATGGCGTGATCTCGGCTCAC TGCAAATCTCCGCCTCCAGGTTCAAGCGATTCTCTGCCC
TCAGCCTCCTGAGTAGCTGGGATTACAGGCAACTGCCACCATGCCCGGCTAATTTTTGTATTTTTTAGTAGAGATG
GGGTTTACCATGTTGGCCAGGCTGGTCTCGAACTCGTGACCGCAGTGATCCTCCCGCCTCGGCCTCCCAAAGTG
CTGGGATTACAGGCATGAGCCACCGCGCCTGGCCTCTGCTTACTTTTTATATAGCAAAATGATTCCCCTTGGCAA
GATGTTTCTTATATTATTCCAAAGTTATTTTATACCATATTATATGTAAATATGAAGAGTTTTTTTCTGTTTATAA
TTGTTTATAAAACAATGACTTTTTAAAGATTTAGTGCTTAACATTTTCCCAAGTGTTGGGAACATTATTTTTAGATT
GAGTAGGTACCTTGTAGCAGTGCTTTGCATTTTCTGATGTATTACATGACTGTTTCTTTTGTAAAGAGAATCA
ACTAGGTATTTAAGACTGATAATTTTACAATTTATATGCTTCACATAGCATGTCAACTTTTGACTAAGAATTTTG
TTTTACTTTTTTAAACATGTGTTAAACAGAGAAAGGGTCCATGAAGGAAAGTGATGAGTTGCATTTGTAAAAATG
AGACTTTTTTCACTGGAACCTCTAAACCTTGTGATGACTACTAACAATGTAAAATTATGAGTGATTAAGAAAACAT
TGCTTTGTGGTTATCACTTTAAGTTTTGACACCTAGATTATAGTCTTAGTAATAGCATCCACTGGAAAAGGTGAA
AATGTTTTATTTCAGCATTTAACTTACATTTGTAATTTAGAGTATTTTGTATAAAATCCATAGATTTATTTTACA
TTTAGAGTATTTTACACTATGATAAAGTTGTAATAATTTTCTAAGACAGTTTTTATATAGTCTACAGTTGTCCTG
ATTTCTTATTGAATTTGTTAGACTAGTTCTCTTGTCTGTGATCTGTGTACAATTTTAGTCACTAAGACTTTTCT
CCAAGAATAAGCCAACCTTGATGTGAAAAGCACGGCTGTATATAATGGTGATGTCATAATAAGTTGTTTTATCT
TTTAAGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 73

MRTGWATPRRPAGLLMLLFWFFDLAEPSSGRAANDPFTIVHGNTGKCIKPVYGWIVADDCDEDEDKLWKWVSQHRL
FHLHSQKCLGLDITKSVNELRMFSCDSSAMLWWKCEHHSLYGAARYRLALKDGHGTAISNASDVWKKGGSEESLC
DQPYHEIYTRDGSYGRPCFEFPLIDGTWHHDCILDEDHSGPWCATTNLNIEYDRKWGICLKPENGCEDNWEKNEQ
FGSCYQFNTQTALSWKEAYVSCQNQGADLLSINSAAELTYLKEKEGIAKIFWIGLNQLYSARGWEWSHKPLNFL
NWDPRPSAPTIGGSSCARMDAESGLWQSFSCEAQLPYVCRKPLNNTVELTDVWTYSOTRCAGWLPNNGFCYLL
VNESNSWDKAHAKCKAFSSDLISIHSLADVEVVVTKLHNEDIKEEVWIGLKNINIPTLFQWSDGTEVTLTYWDEN
EPNVPYNKTPNCVSYLGELGQWKVQSCEEKLYVC KRKGEKLNDASSDKMCPDEGWKRHGETCYKIYEDEVPPG
TNCNLITITSRFEQEYLNDLMKKYDKSLRKYFWTGLRDVDSCEYNWATVGGRRRAVTFSNWNFLEPASPGGCVAM
STGKSVGKWEVKDCRSFKALSICKKMSGPLGPEEASPKPDDPCPEGWQSFPASLSCYKVFHAERIVRKRNWEEAE
RFCQALGAHLSSF SHVDEIKEFLHFLTDQFSGQHWLWIGLNKRSPDLQGSWQWSDRTPVSTIIMPNEFQQDYDIR
DCAAVKVFHRPWRRGWHFYDDREFIYLRPFACDTKLEWVCQIPKGRTPKTPDWYNPDRAGIHGPPLIIEGSEYWF
VADLHLNIEEAVLYCASNHSFLATITSFVGLKAIKNKIANISGDGQKWIRISEWPIDDHFTYSRYPWHRFPVTF
GEECLYMSAKTWLIDLKPTDCSTKLPFICEKYNVSSLEKYSPPSAKVQCSEQWIPFQNKCF LKIKPVSLTFSQ
ASDTCHSYGGTLP SVLSQIEQDFITSLLPDMEATLWIGLRWTAYEKINKWTDNRELTYSNFHLLVSGRLRIPEN
FFEEESRYHCALILNLQKSPFTGTWNFTSCSERHFVSLCQKYSEVKSRQTLQNASSETVKYLNLYKIIPKTLTWH
SAKRECLKSNMQLVSITDPYQQAFLSVQALLHNSSLWIGLFSQDDELNFGWSDGKRLHFSRWAETNGQLED CVVL
DTDGFWKTVDCNDNQPGAICYYSNETEKEVKPVD SVKCPSPVLNTPWIPFQNCYNFIIITKNRHMATTQDEVHT
KCQKLNPKSHILSIRDEKENNFVLEQLLYFN YMASWVMLGITRNNSLMWFDKTPLSYTHWRAGRPTIKNEKFLA
GLSTDGFWDIQT FKVIEEAVYFHQHSILACKIEMVDYKEEHNTTLPQFMPYEDGIYSVIQKKVTWYEALNMCSQS
GGHLASVHNQNGQLFLEDIVKRDGFPLWVGLSSH DGSSEFFEWSDGSTFDYIPWKGQTSPGNCVLLDPKGTWKHE
KCNSVKDGAICYKPTKSKLSRLTYSSRCPAAKENGSRWIQYKGHCYKSDQALHSFSEAKKLCSKHDHSATIVSI
KDEDENKFVSRLMRENNNITMRVWLGLSQHSVDQSWSWLDGSEVTFVKWENKSKSGVGRCSMLIASNETWKKVEC
EHGFGRVVCKVPLGPDYTAIAIIVATLSILVLMGGLIWFLFQRHRLHLAGFSSVRYAQGVNEDEIMLP SFHD

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FIGURE 74

GCGGCGGCGGCGGCGCAGTTTGCTCATACTTTGTGACTTGCGGTCACAGTGGCATTTCAGCTCCACACTTGGTAGA
ACCACAGGCACGACAAGCATAGAAACATCCTAAACAATCTTCATCGAGGCATCGAGGTCCATCCCAATAAAAATC
AGGAGACCCCTGGCTATCATAGACCTTAGTCTTCGCTGGTATACTCGCTGTCTGTCAACCAGCGGTTGACTTTTTT
TAAGCCTTCTTTTTTCTCTTTTACCAGTTTCTGGAGCAAATTCAGTTTGCCTTCCTGGATTGTAAATTGTAATG
ACCTCAAAACCTTAGCAGTTCTTCCATCTGACTCAGGTTTGCTTCTCTGGCGGTCTTCAGAATCAACATCCACAC
TTCCGTGATTATCTGCGTGCATTTTGGACAAAGCTTCCAACCAGGATACGGGAAGAAGAAATCGCTGGTGATCTT
TCAGCAGGTTTCTTCATGGAGGAACCTTAATACATACCGTCAGAAGCAGGGAGTAGTACTTAAATATCAAGAACTG
CCTAATTCAGGACCTCCACATGATAGGAGGTTTACATTTCAAGTTATAATAGATGGAAGAGAATTTCCAGAAGGT
GAAGGTAGATCAAAGAAGGAAGCAAAAATGCCGCAGCCAAATTAGCTGTTGAGATACTTAAATAAGGAAAAGAAG
GCAGTTAGTCCTTTATTATTGACAACAACGAATTCCTCAGAAGGATTATCCATGGGGAATTACATAGGCCTTATC
AATAGAATTGCCCAGAAGAAAAGACTAAGTGTAAATTTATGAACAGTGTGCATCGGGGGTGCATGGGCCAGAAGGA
TTTCATTATAAATGCAAAATGGGACAGAAAGAATATAGTATTGGTACAGGTTCTACTAAACAGGAAGCAAAACAA
TTGGCCGCTAAACTTGCATATCTTCAGATATTATCAGAAGAAACCTCAGTGAAATCTGACTACCTGTCTCTGGT
TCTTTTGCTACTACGTGTGAGTCCCAAAGCAACTCTTTAGTGACCAGCACACTCGCTTCTGAATCATCATCTGAA
GGTGACTTCTCAGCAGATACATCAGAGATAAATTTCTAACAGTGACAGTTTAAACAGTTCTTCGTTGCTTATGAAT
GGTCTCAGAAATAATCAAAGGAAGGCAAAAAGATCTTTGGCACCCAGATTTGACCTTCCTGACATGAAAGAAACA
AAGTATACTGTGGACAAGAGGTTTGGCATGGATTTTAAAGAAATAGAATTAATTGGCTCAGGTGGATTGGCCAA
GTTTTCAAAGCAAAACACAGAATTGACGGAAAGACTTACGTTATTAAACGTGTTAAATATAATAACGAGAAGGCG
GAGCGTGAAAGTAAAGCATTGGGCAAACTTGATCATGTAAATATTGTTCACTACAATGGCTGTTGGGATGGATTT
GATTATGATCCTGAGACCAGTGATGATTCTCTTGAGAGCAGTGATTATGATCCTGAGAACAGCAAAAATAGTTCA
AGGTCAAAGACTAAGTGCCTTTTATCCAAATGGAATTCTGTGATAAAGGACCTTGGAAACAATGGATTGAAAAA
AGAAGAGGCGAGAACTAGACAAAGTTTTGGCTTTGGAAGTCTTTGAACAAATAACAAAAGGGGTGGATTATATA
CATTCAAAAAAATTAATTCATAGAGATCTTAAGCCAAGTAATATATTCTTAGTAGATACAAAACAAGTAAAGATT
GGAGACTTTGGACTTGTAACATCTCTGAAAAATGATGGAAAGCGAACAAGGAGTAAGGGAACCTTGCATACATG
AGCCCAGAACAGATTTCTTCGAAGACTATGGAAAGGAAGTGGACCTCTACGCTTTGGGGCTAATTCTTGCTGAA
CTTCTTCATGTATGTGACACTGCTTTTGAACATCAAAGTTTTTCACAGACCTACGGGATGGCATCATCTCAGAT
ATATTTGATAAAAAAGAAAAACTCTTCTACAGAAATTACTCTCAAAGAAACCTGAGGATCGACCTAACACATCT
GAAATACTAAGGACCTTGACTGTGTGGAAGAAAAGCCCAGAGAAAAATGAACGACACACATGTTAGAGCCCTTCT
GAAAAAGTATCCTGCTTCTGATATGCAGTTTTCTTAAATTATCTAAAATCTGCTAGGGAATATCAATAGATATT
TACCTTTTATTTAATGTTTCCTTTAATTTTTTACTATTTTTACTAATCTTCTGCAGAAACAGAAAGGTTTTCT
TCTTTTGTCTCAAAAACATTCTTACATTTTACTTTTTCTGGCTCATCTCTTTATTCTTTTTTTTTTTTTTAA
GACAGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAATGACACAGTCTTGGCTCACTGCAACTCTGCCTCTTGG
GTTCAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGATTACAGGCATGTGCCACCCACCCAACCTAATTTTT
GTGTTTTTAATAAAGACAGGGTTTACCATGTTGGCCAGGCTGGTCTCAAACCTCCTGACCTCAAGTAATCCACCT
GCCTCGGCCTCCCAAAGTGCTGGGATTACAGGGATGAGCCACCGCGCCAGCCTCATCTCTTGTCTAAAGATG
GAAAAACCACCCCAAAATTTCTTTTTTATACTATTAATGAATCAATCAATTCATATCTATTTATTAATTTCTAC
CGCTTTTAGGCCAAAAAATGTAAGATCGTTCTCTGCCTCACATAGCTTACAAGCCAGCTGGAGAAATATGGTAC
TCATTAAAAAAGTATGTACAACC

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FIGURE 75

MAGDLSAGFFMEELNTYRQKQGVLKYQELPNSGPPHRRFTFQVIIDGREFPPEGGRSKKEAKNAAKLAVEIL
NKEKKAVSPLLLTTTNSSEGLSMGNYIGLINRIAQKKRLTVNYEQCASGVHGPEGFHYKCKMGQKEYSIGTGSTK
QEAKQLAAKLAYLQILSEETSVKSDYLSSGSFATTCESQSNSLVTSTLASESSSEGDFSADTSEINSNSDSLNS
SLLMNGLRNNQRKAKRSLAPRFDLPDMKETKYTVDKRFGMDFKEIELIGSGGFGQVFKAKHRIDGKTYVIKRVKY
NNEKAEREVKALAKLDHVNI VHYNGCWDGFDYDPETSDDSLESSDYDPENSKNSSRSKTKCLFIQMEFCDKGTLE
QWIEKRRGEKLDKVLALLELFEQITKGVDYIHSKKLIHRDLKPSNIFLVDTKQVKIGDFGLVTSKNDGKRTRSKG
TLRYMSPEQISSQDYGKEVDLYALGLILAELLHVCDTAFETSKFFTDLRDGIISDIFDKKEKTLLQKLLSKKPED
RPNTSEILRTLTVWKKSPKNERHTC

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FIGURE 76

GGCACGAGGATTGCTGCTCCGCAGCACGGCCGAGCTGGTCCGGTCAAGAGTCGGGATTGTGGGGAGAGGTTT
TCCACTGGTCAAGAGAAGGCTTTAAGAAAGACGGTATTAATCTCCCGTTGCGGCTCCCGCCTGGTCCCATTCT
GCCCGCTCCTCCAGGAAATGAATCTGCTGCCGAATATTGAGAGTCCAGTGACTCGGCAGGAGAAGATGGCGACCG
TGTGGGATGAGGCCGAGCAAGATGGAATTGGGGAGGAGGTGCTCAAGATGTCCACGGAGGAGATCATCCAGCGCA
CACGGCTGCTGGACAGTGAGATCAAGATCATGAAGAGTGAAGTGTTGAGAGTCACCCATGAGCTCCAAGCCATGA
AGGACAAGATAAAAGAGAACAGTGAGAAAATCAAAGTGAACAAGACCCTGCCGTACCTTGTCTCCAACGTCATCG
AGCTCCTGGATGTTGATCCTAATGACCAAGAGGAGGATGGTGCCAATATTGACCTGGACTCCCAGAGGAAGGGCA
AGTGTGCTGTGATCAAAACCTCTACACGACAGACGTACTTCCTTCCTGTGATTGGGTTGGTGGATGCTGAAAAGC
TAAAGCCAGGAGACCTGGTGGGTGTGAACAAAGACTCCTATCTGATCCTGGAGACGCTGCCCACAGAGTATGACT
CGCGGCTGAAGGCCATGGAGGTAGACGAGAGGCCCACGGAGCAATACAGTGACATTGGGGGTTTGGACAAGCAGA
TCCAGGAGCTGGTGGAGGCCATTGTCTTGCCAATGAACCACAAGGAGAAGTTTGAGAACTTGGGGATCCAACCTC
CAAAAGGGGTGCTGATGTATGGGCCCCCAGGGACGGGGAAGACCCTCCTGGCCCGGGCCTGTGCCGCACAGACTA
AGGCCACCTTCCTAAAGCTGGCTGGCCCCCAGCTGGTGCAGATGTTTCATTGGAGATGGTGCCAAGCTAGTCCGGG
ATGCCTTTGCCCTGGCCAAGGAGAAAGCGCCCTCTATCATCTTCATTGATGAGTTGGATGCCATCGGCACCAAGC
GCTTTGACAGTGAGAAGGCTGGGGACCGGGAGGTGCAGAGGACAATGCTGGAGCTTCTGAACCAGCTGGATGGCT
TCCAGCCCAACACCCAAGTTAAGGTAATTGCAGCCACAAACAGGGTGGACATCCTGGACCCCGCCCTCCTCCGCT
CGGGCCGCTTGACCGCAAGATAGAGTTCCCGATGCCCAATGAGGAGGCCCGGGCCAGAATCATGCAGATCCACT
CCCGAAAGATGAATGTCAGTCTGACGTGAAGTACGAGGAGCTGGCCCCGCTGCACAGATGACTTCAATGGGGCCC
AGTGCAAGGCTGTGTGTGTGGAGGCGGGCATGATCGCACTGCGCAGGGGTGCCACGGAGCTACCCACGAGGACT
ACATGGAAGGCATCCTGGAGGTGCAGGCCAAGAAGAAAGCCAACCTACAATACTACGCCTAGGGGCACACAGGCCA
GCCCCAGTCTCACGGCTGAAGTGCGCAATAAAAGATGGTTTtagggTCCCTGCCAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 77

MNLLPNIESPVTRQEKMATVWDEAEQDGIGEEVLKMSTEEIIQRTRLLDSEIKIMKSEVLRVTHELQAMKDKIKE
NSEKIKVNKTLPYLVSNVIELLDVDPNDQEEDGANIDLDSQRKGKCAVIKTSTRQTYFLPVIGLVDAEKLKPGDL
VGVNKDSYLILETLPTHEYDSRVKAMEVDERPTEQYSDIGGLDKQIQELVEAIVLPMNHKEKFENLGIQPPKGVLM
YGPPGTGKTLLARACAAQTKATFLKLAGPQLVQMFIGDGAKLVRDALAKEKAPSIIFIDELDAIGTKRFDSEK
AGDREVQRTMLELLNQLDGFQPNQVKVIAATNRVDILDPALLRSGRLDRKIEFFMPNNEEARARIMQIHSRKMNV
SPDVNYEELARCTDDFNGAQCKAVCVEAGMIALRRGATELTHEDYMEGILEVQAKKKANLQYYA

FIGURE 78

[illegible]

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FIGURE 79

MRRCN SGSGPPPSLLLLLLWLLAVPGANAAPRSALYSPSDPLTLLQADTVRGAVLGSRSAWAVEFFASWCGHCIA
FAPTWKALAEDVKAWRPALYLAALDCAEETNSAVCRDFNIPGFPTVRFFKAFTKNGSGAVFPVAGADVQTLRERL
IDALESHHDTWPPACPPLEPAKLEEIDGFFARNNEEYLALIFEKGGSYLGREVALDLSQHKGVAVRRVLNTEANV
VRKFGVTDFFPSCYLLFRNGSVSRVPVLMESRSFYTAYLQRLSGLTREAAQTTVAPTTANKIAPT VWKLADRSKIY
MADLESALHYILRIEVGRFPVLEGQRLVALKKFVAVLAKYFPGRPLVQNFLHSVNEWLKRQKRNKIPYSFFKTAL
DDRKEGAVLAKKVNWIGCQGSEPHFRGFPCSLWVLFHFLT VQAARQNVDSQEAAKAKEVLP AIRGYVHYFFGCR
DCASHFEQMAAASMRVGS PNAAVLWLWSSHNRVNARLAGAPSEDPQFPKVQWPPRELCSACHNERLDVPVWDVE
ATLNFLKAHFSPSNIILDFFAAGSAARRDVQNVAAPELAMGALELESRNSTLDPGKPEMMKSPTNTTPHVPAEG
PEASRPPKLHPGLRAAPGQEPPEHMAELQRNEQEQLGQWHLSKRDTGAALLAESRAEKNRLWGPLEVRRVGRSS
KQLVDIPEGQLEARAGRGRGWLQVLGGGFSYLDI SLCVGLYSLSF MGLLAM YTYFQAKIRALKGHAGHPAA

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FIGURE 80

AAGGACACGGGCAGCAGACAGTGGTCAGTCCTTTCTTGGCTCTGCTGACACTCGAGCCCACATTCCGTCACCTGC
TCAGAATCATGCAGGTCTCCACTGCTGCCCTTGCTGTCCTCTCTGCACCATGGCTCTCTGCAACCAGTTCTCTG
CATCACTTGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGGCAGATTCCACAGAATTTTCATAG
CTGACTACTTTGAGACGAGCAGCCAGTGCTCCAAGCCCGGTGTCATCTTCCTAACCAAGCGAAGCCGGCAGGTCT
GTGCTGACCCCAAGTGAGGAGTGGGTCCAGAAATATGTCAGCGACCTAGAGCTGAGTGCCTGAGGGGTCCAGAAGC
TTCGAGGCCCAGCGACCTCGGTGGGCCAGTGGGGAGGAGCAGGAGCCTGAGCCTTGGGAAACATGCGTGTGACCT
CCACAGCTACCTCTTCTATGGACTGGTTGTTGCCAAACAGCCACACTGTGGGACTCTTCTTAACCTAAATTTTAA
TTTATTTATACTATTTAGTTTTTGTAAATTTATTTTCGATTTACAGTGTGTTTGTGATTGTTTGCTCTGAGAGTT
CCCCTGTCCCTCCCCCTTCCCTCACACCGCGTCTGGTGACAACCGAGTGGCTGTCATCAGCCTGTGTAGGCAGT
CATGGCACCAAAGCCACCAGACTGACAAATGTGTATCGGATGCTTTTGTTTCAGGGCTGTGATCGGCCTGGGGAAA
TAATAAAGCACGCTCTTTTAAAAGGT

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FIGURE 81

MQVSTAALAVLLCTMALCNQFSASLAADTPTACCF SYTSRQIPQNF IADYFETSSQCSKPGVIFLTKRSRQVCAD
PSEEWVQKYVSDLELSA

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FIGURE 82

TTCCCCCCCCCCCCCCCCCCCCCGCCCGAGCACAGGACACAGCTGGGTTCTGAAGCTTCTGAGTTCTGCAGCCT
CACCTCTGAGAAAACCTCTTTTCCACCAATACCATGAAGCTCTGCGTGAAGTCTCCTGTCTCTCCTCATGCTAGTA
GCTGCCTTCTGCTCTCCAGCGCTCTCAGCACCAATGGGCTCAGACCCTCCCACCGCCTGCTGCTTTTCTTACACC
GCGAGGAAGCTTCCTCGCAACTTTGTGGTAGATTACTATGAGACCAGCAGCCTCTGCTCCCAGCCAGCTGTGGTA
TTCCAAACCAAAAAGAAGCAAGCAAGTCTGTGCTGATCCAGTGAATCCTGGGTCCAGGAGTACGTGTATGACCTG
GAACTGAAGTGAAGCTGCTCAGAGACAGGAAGTCTTCAGGGAAGGTCACCTGAGCCCGGATGCTTCTCCATGAGAC
ACATCTCCTCCATACTCAGGACTCCTCTCCGCAGTTCTGTCCCTTCTCTTAATTTAATCTTTTTTATGTGCCGT
GTTATTGTATTAGGTGTCATTTCATTATTTATATTAGTTTAGCCAAAGGATAAGTGTCTATGGGGATGGTCCA
CTGTCACTGTTTCTCTGCTGTTGCAAATACATGGATAACACATTTGATTCTGTGTGTTTTCCATAATAAACTTT
AAAATAAAATGCAGACAGTTA

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FIGURE 83

MKLCVTVLSELLMLVAAFCSPALSAPMGSDPPTACCFSTARKLPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCA
DPSESWVQEYVYDLELN

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FIGURE 84

CCCTGAGCAGAGGGACCTGCACACAGAGACTCCCTCCTGGGCTCCTGGCACCATGGGCCCCACTGAAGATGCTGGC
CCTGGTCACCCCTCCTCCTGGGGGCTTCTCTGCAGCACATCCACGCAGCTCGAGGGACCAATGTGGGCCGGGAGTG
CTGCCTGGAGTACTTCAAGGGAGCCATTCCCCTTAGAAAGCTGAAGACGTGGTACCAGACATCTGAGGACTGCTC
CAGGGATGCCATCGTTTTTTGTAACGTGTCAGGGCAGGGCCATCTGTTTCGGACCCCAACAACAAGAGAGTGAAGAA
TGCAGTTAAATACCTGCAAAGCCTTGAGAGGTCTTGAAGCCTCCTCACCCCAGACTCCTGACTGTCTCCCGGGAC
TACCTGGGACCTCCACCGTTGGTGTTCACCGCCCCCACCCTGAGCGCCTGGGTCCAGGGGAGGCCTTCCAGGGAC
GAAGAAGAGCCACAGTGAGGGAGATCCCATCCCCTTGTCTGAACTGGAGCCATGGGCACAAAGGGCCCAGATTAA
AGTCTTTATCCTC

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FIGURE 85

MAPLKMLALVTLLLGLSLQHIHAARGTNVGRECCLEYFKGAIPLRKLKTWYQTSEDCSRDAIVFVTVQGRAICSD
PNNKRVKNAVLYQLSLERS

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FIGURE 86

ATACAGGACAGAGCATGGCTCGCCTACAGACTGCACTCCTGGTTGTCCTCGTCCTCCTTGCTGTGGCGCTTCAAG
CAACTGAGGCAGGCCCCCTACGGCGCCAACATGGAAGACAGCGTCTGCTGCCGTGATTACGTCCGTTACCGTCTGC
CCCTGCGCGTGGTGAAACACTTCTACTGGACCTCAGACTCCTGCCCCGAGGCCTGGCGTGGTGTGCTAACCTTCA
GGGATAAGGAGATCTGTGCCGATCCCAGAGTGCCCTGGGTGAAGATGATTCTCAATAAGCTGAGCCAATTGAAGAG
CCTACTCTGATGACCGTGGCCTTGGCTCCTCCAGGAAGGCTCAGGAGCCCCACCTCCCTGCCATTATAGCTGCTC
CCCGCCAGAAGCCTGTGCCAACTCTCTGCATTCCCTGATCTCCATCCCTGTGGCTGTCACCCTTGGTCACCTCCG
TGCTGTCACTGCCATCTCCCCCTGACCCCTCTAACCCATCCTCTGCCTCCCTCCCTGCAGTCAGAGGGTCCTGT
TCCCATCAGCGATTCCCCTGCTTAAACCCTTCCATGACTCCCCACTGCCCTAAGCTGAGGTCAGTCTCCCAAGCC
TGGCAITGGCCCTCTGGATCTGGGTTCATCTCTGTCTCCAGCCTGCCCACTTCCCTTCATGAATGTTGGGTTT
TAGCTCCCTGTTCTCAAACCCATACTACACATCCCCTTCTGGGTCTTTGCCTGGGATGTTGCTGACACTCAGA
AAGTCCCACCACCTGCACATGTGTAGCCCCACCAGCCCTCCAAGGCATTGCTCGCCCAAGCAGCTGGTAATTCCA
TTTCATGTATTAGATGTCCCCTGGCCCTCTGTCCCCTCTTAATAACCCTAGTCACAGTCTCCGCAGATTCTTGGG
ATTTGGGGGTTTTCTCCCCCACCTCTCCACTA

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FIGURE 87

MARLQTALLVVLVLLAVALQATEAGPYGANMEDSVCCRDYVRYRLPLRVVKHFYWTSDSCPRPGVVLLTFRDKEI
CADPRVPWVKMILNKLSQ

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FIGURE 88

GGTTCAGGAACCTGCTGGTTCTGATACATAAATCAGACAGCCTCTGCTGCATGACACGAAGCTTGCTTCTGCCTG
GCATCTGTGAGCAGCTGCCAGGCTCCGGCCAGGATCCCTTCTTCTCCTCATTGGCTGATGGATCCCAAGGGGCT
CCTCTCCTTGACCTTCGTGCTGTTTCTCTCCCTGGCTTTTGGGGCAAGCTACGGAACAGGTGGGCGCATGATGAA
CTGCCCAAAGATTCTCCGGCAGTTGGGAAGCAAAGTGCTGCTGCCCCTGACATATGAAAGGATAAATAAGAGCAT
GAACAAAAGCATCCACATTGTCTGTCACAATGGCAAATCACTGGAGAACAGTGTGAGAACAAAATAGTGTCTCT
TGATCCATCCGAAGCAGGCCCTCCACGTTATCTAGGAGATCGCTACAAGTTTTATCTGGAGAATCTCACCTGGG
GATACGGGAAAGCAGGAAGGAGGATGAGGGATGGTACCTTATGACCCTGGAGAAAAATGTTTCAGTTCAGCGCTT
TTGCTGCGAGTTGAGGCTTTATGAGCAGGTCTCCACTCCAGAAATTAAGTTTTAAACAAGACCCAGGAGAACGG
GACCTGCACCTTGATACTGGGCTGCACAGTGGAGAAGGGGGACCATGTGGCTTACAGCTGGAGTGAAAAGGCGGG
CACCCACCCACTGAACCCAGCCAACAGCTCCCACCTCCTGTCCCTCACCTCGGCCCCAGCATGCTGACAATAT
CTACATCTGCACCGTGAGCAACCCTATCAGCAACAATTCCAGACCTTCAGCCCGTGGCCCGGATGCAGGACAGA
CCCCTCAGAAACAAAACCATGGGCAGTGTATGCTGGGCTGTTAGGGGGTGTTCATCATGATTCTCATCATGGTGGT
AATACTACAGTTGAGAAGAAGAGGTAAAACGAACATTACCAGACAACAGTGGAAGAAAAAGCCTTACGATCTA
TGCCCAAGTCCAGAAACCAGTCTCTTCAGAAGAACTTGACTCCTTCCCAGCTCAGGACCCTTGCACCACCAT
ATATGTTGCTGCCACAGAGCCTGTCCAGAGTCTGTCCAGGAACAAATCCATCACAGTCTATGCTAGTGTGAC
ACTTCCAGAGAGCTGACACCAGAGACCAACAAAGGGACTTTCTGAAGGAAAATGGAAAAACCAAAATGAACACTG
AACTTGGCCACAGGCCCAAGTTTCCTCTGGCAGACATGCTGCACGCTGTGTACCCTTCTCAGATCAACTCCCTGGT
GATGTTTCTTCCACATACATCTGTGAAATGAACAAGGAAGTGAGGCTTCCCAAGAAATTTAGCTTGCTGTGCAGTG
GCTGCAGGCGCAGAACAGAGCGTTACTTGATAACAGCGTTCCATCTTTGTGTTGTAGCAGATGAAATGGACAGTA
ATGTGAGTTCAGACTTTGGGCATCTTGCTCTTGGCTGGAAGTATAATAAAAAATCAGACTGAAAGCCAGGACATC
TGAGTACCTATCTCACACTGACCACCAGTCACAAAGTCTGGAAAAGTTTACATTTTGGCTATCTTTACTTTGT
TCTGGGAGCTGATCATGATAACCTGCAGACCTGATCAAGCCTCTGTGCCTCAGTTTCTCTCTCAGGATAAAGAGT
GAATAGAGGCCGAAGGGTGAATTTCTTATTATACATAAAACACTCTGATATTATTGTATAAAGGAAGCTAAGAAT
ATTATTTTATTTGCAAAACCCAGAAGCTAAAAAGTCAATAAACAGAAAGAATGATTTTGAGAAA

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FIGURE 89

MDPKGLLSLTFVLFLSLAFGASYGTGGRMMNCPKILRQLGSKVLLPLTYERINKSMNKSIHIVVTMAKSLENSVE
NKIVSLDPSEAGPPRYLGDRYKFYLENLTLGIRESRKEDEGWYLMLEKNVSVQRFCLQLRLYEQVSTPEIKVLN
KTQENGTC TLILGCTVEKGDHVAYSWSEKAGTHPLNPANSSHLLSLTLGPQHADNIYICTVSNPISNNSQTFSPW
PGCRTDPSETKPWAVYAGLLGGVIMILIMVVILQLRRRGKTNHYQTTVEKKSLTIYAQVQKPGPLQKKLDSFPAQ
DPCTTIYVAATEPVPESVQETNSITVYASVTLPE

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FIGURE 90

ACGCCCTATACAACCTTGGCTTCACATACTTTTACACTAACCTTTATATGATTTTTTAAAACTGGTCTGATCGGACT
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA
CCTTAAACCCACTCGAGCAGATAATCTCCGCCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACCATGTGGACTTT
TCTGGGCAITGCCACTTTTACCTATTTTTATAAGAAGTTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCTCT
GTTGTGCGTGCTGGTGTCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT
CGGGCGCCAGCGGAGCGGCTCCAGTTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTTCATTGGCTTCTT
CTGGGCCAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG
AGACTTAAAAGAGCCTGACAGAATAGTTGGAGAATTCCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG
TCTTGAGATACAGTGGAAGGTCTTGATGCCAGGTTGTAAATGGTTACATGATTTCATGATCAGGAAAGCAAATC
AGAGGTTTCAGATTCTTACCCTCTGTTCAGAAAACAATCAAGTGCAGAGTGGAAGAGCTTTCCATCACGGAAGATT
CATCATGAGTCTCCGGAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT
AGAGGAAGATGATGTTGTGATGGGAGTTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC
ACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC
TCATTTTGTGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTATTTTAGCTAACCC
GAGTCCAGTTCTCATCTACCGGATTTTCATCCAGTGAAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTTCCTTCCTCCTTCATCAGTGAAGAAACGAGGTGTTCT
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA
ACTATGGAGAAAACTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT
TTACTGGGCAAGAAAAACATCTCATTCCTTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTGC
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTTGGTGGCGAATGTGTTGCGGG
TCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCCTCTAGCTTTAATTGGACACTTCTTGTGTTGCAATCTA
TGCCGTGTATTTTTGCTTTAAGTCAGAACCTTGGAATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT
GTACAAAGCGTGTTCTGTAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTCATTAAGCTTAAAGGGG
AACCATTTGTGAATGAATATTTGGAACCTACCAAGTCCTAAGAGACTTTTGAAGAGGATATATATAGCATAGTA
CCATACCACTTATAAAGTGGAACCTCTTGGAACCAAGATTTGGATTAATTTGTTTTTGAAGTTTTTGTATATAAA
TATGTAAATACATGCTTTAATTTGCAATTTAAATGAAGGGGTAAATAAGTTAGACATTTGAAAGAAATGATTG
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG
GGACATGCAAAATAAATGAAGAATGAC

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FIGURE 91

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVF LSLGLVLSYRCRHRNGLLGRQRSGSQFALFSDILSGLPF
IGFFWAKSPPESENKEQLGARRRRKGTNISETS LIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT
VIERDLKEPDRI VGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH
HGRFIMSLRKAAMAEPNAKFIEGVVLQ LLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV
SVSSHVGVFLMKNAPQFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGE CVAGPVGLLSVLSPNPLALIGHFFA
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEM KYMVH

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FIGURE 92

AGAGGACGCCCGGTGAAGGGCTCCAGCCTGGCAGTTTCTGCGTGTTAGCATTCTAGAAATAGAGTGGGTGGGAA
CTGACCCAAGTAAAGTCCCAGAGACTCGAACACTGACGCACAGGAAAGCCTCAAGTGGGAGGAGAAATGCAAATC
CCCTACTGATGATGGCGTCAGCGGCTTTCTCCTAGGGACTGTGAGGGGCGCTTCTGACTTTGGACTTGAGCACTG
CCTGGGACCTGTGCTGAGAGAGCGCTAGCATGTCTCAGTGGAATCAAGTCCAACAGTTAGAAATCAAGTTTTTGG
AGCAGGTGGATCAATTCTATGATGACAACCTTTCCCATGGAAATTCGGCATCTGTTGGCCCAATGGATTGAAAATC
AAGACTGGGAGGCAGCTTCTAACAATGAAACCATGGCAACGATTCTTCTTCAAACTTGTTAATACAACCTGGATG
AACAGTTAGGTCGTGTTTCCAAAGAGAAAAACCTACTCTTGATACACAATCTAAAAAGAATTAGGAAGGTCCTTC
AGGGAAAATTTTCATGGAAATCCAATGCATGTAGCTGTGGTTATTTCAAACCTGTTTAAGGGAAGAGAGGAGAATAT
TGGCTGCAGCCAACATGCCTGTCCAGGGGCTCTAGAGAAATCCTTACAAAGTTCTTCAGTTTCAGAAAGACAGA
GGAATGTGGAGCACAAAGTGGCTGCCATTAAAAACAGTGTGCAGATGACAGAACAAGATACCAAATACTTAGAAG
ATCTGCAAGACGAATTTGACTACAGGTATAAAACAATTCAGACAATGGATCAGAGTGACAAGAATAGTGCCATGG
TGAATCAGGAAGTTTTGACACTGCAGGAAATGCTTAACAGCCTCGATTTCAGAGAAAGGAGGCTCTCAGTAAAA
TGACCCAAATCATCCATGAGACAGACCTGTTAATGAACACCATGCTCATAGAAGAGCTGCAAGACTGGAAGCGGC
GGCAGCAAATCGCCTGCATCGGGGGTCCACTCCACAATGGGCTCGACCAGCTTCAGAACTGCTTTACACTATTGG
CAGAAAGTCTTTTCCAACCTGAGAAGGCAATTGGAGAACTAGAGGAGCAATCTACCAAATGACATATGAAGGTG
ATCCCATTCCAATGCAAAGAACTCACATGCTAGAAAGAGTCACCTTCTTGATCTACAACCTTTTCAAGAACTCAT
TTGTGGTTGAGCGACAGCCATGTATGCCAACCCACCCTCAGAGGCCGTTGGTACTTAAACCCTAATTCAGTTCA
CTGTAAACTAAGGCTACTAATAAAATTGCCAGAACTAACTATCAGGTAAAGGTTAAGGCATCAATTGACAAGA
ATGTTTCAACTCTAAGCAACCGAAGATTTGTACTTTGTGGAACATAATGTCAAAGCCATGTCTATTGAAGAATCTT
CCAATGGGAGTCTCTCAGTAGAATTTGACATTTGCAACCAAAGGAAATGAAGTCCAGTGCTGGAGGTAAAGGAA
ATGAGGGCTGTACATGGTGACTGAAGAACTTCATTCCATAACGTTTGAAACACAGATCTGCCTCTATGGCCTGA
CCATAGATTTGGAGACCAGCTCATTGCCTGTGGTGATGATTTCCAATGTCAGTCAGTTACCTAATGCTTGGGCAT
CCATCATTGTTGTAACGTGTCAACCAACGATTCCCAGAACTTGGTTTTCTTTAATAATCCTCCACCTGCCACAT
TGAGTCAACTACTGGAGGTGATGAGCTGGCAGTTTTTCATCGTACGTTGGTCTGTTTAACTCAGATCAACTCC
ATATGCTGGCAGAGAAGCTTACAGTCCAATCTAGCTACAGTGATGGTCACCTCACCTGGGCCAAGTTCTGCAAGG
AACATTTACCTGGTAAATCATTTACCTTTTGGACATGGCTTGAAGCAATATTGGATCTAATTAAGAAACACATTC
TTCCCCTTTGGATTGATGGGTATGTATGGGCTTTGTTAGCAAAGAGAAGGAACGGCTGTTGCTAAAGGATAAAA
TGCTTGGCACCTTTTTATTAAAGATTAGTGAAAGCCATCTCGGAGGAATAACTTTCACCTGGGTGGACCATTCTG
AAAGTGGGGAAGTGAGATTCCACTCTGTAGAACCCTACAATAAAGGCCGTTGTCTGCTCTGCCATTGCTGACA
TCCTGCGAGACTACAAAGTTATTATGGCTGAAAACATTCTGAAAACCTCTGAAGTACCTATATCTGACATTC
CCAAAGACAAAGCCTTCGGTAAACACTACAGCTCTCAGCCTTGCGAAGTTTCAAGACCAACAGAAAGGGGTGACA
AAGGTTATGTTCTTCTGTTTTTATCCCCATCTCAACAATCCGAAGTGATTCAACAGAGCCACATTCTCCATCAG
ACCTTCTTCCCATGTCTCCAAGTGTGTATGCGGTGTTGAGAGAAAACCTGAGTCCCACAACAATTGAACTGCAA
TGAAGTCTCCTTATTCTGCTGAATGACAGGATAAACTCTGACGCACCAAGAAAGGAAGCAAATGAAAAAGTTTAA
AGACTGTTCTTTGCCAATAACCACATTTTATTTCTTCAGCTTTGTAAATACCAGGTTCTAGGAAATGTTTGACA
TCTGAAGCTCTCTTCACTCCCGTGGCACTCCTCAATTGGGAGTGTTGTGACTGAAATGCTTGAAACCAAAGCT
TCAGATAAACTTGCAAGATAAGACAACCTTTAAGAAACCAGTGTTAATAACAATATTAACAG

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FIGURE 93

MSQWNQVQQLEIKFLEQVDQFYDDNFPMEIRHLLAQWIENQDWEAASNNETMATILLQNLLIQLDEQLGRVSKEK
NLLLIHNLKRIRKVLQGKFHGNPMHVAVVISNCLREERRILAAANMPVQGFLEKSLQSSSVSERQRNVEHKVAAI
KNSVQMTEQDTKYLEDLQDEFDORYKTIQTMDQSDKNSAMVNQEVLTQEMLSLDFKRKEALSKMTQIIHETDL
LMNTMLIEELQDWKRRQIACIGGPLHNGLDQLQNCFTLLAESLFQLRRQLEKLEEQSTKMTYEGDPIPMQORTHM
LERVTFLIYNLFKNSFVVERQPCMPHTPQRPLVLKTLIQFTVKLRLLIKLPELNYQVKVKASIDKNVSTLSNRRF
VLCGTNVKAMSIEESSNGSLSEFRHLQPKEMKSSAGGKGNEGCHMVTEELHSITFETQICLYGLTIDLETSSLP
VVMISNVSQLPNAWASIIWYNVSTNDSQNLVFFNNPPPATLSQLLEVMSWQFSSYVGRGLNSDQLHMLAEKLTVO
SSYSDGHLTWAKFCKEHLPGKSFTFTWTWLEAILDLIKHHILPLWIDGYVMGFVSKEKERLLLKDKMPGTFLLRFS
ESHLGGITFTWVDHSESGEVRFHSVEPYNKGRLSALPFADILRDYKVIMAENIPENPLKYLYPDIPKDKAFGKHY
SSQPCEVSRPTERGDKGYVPSVFIPISTIRSDSTEPHSPDLLPMSPSVYAVLRENLSPTTIETAMKSPYSAE

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FIGURE 94A

CAAATGCGAACTTAGGCTGTTACACAACCTGCTGGGGTCTGTTCTCGCCGCCCGCCCGGCAGTCAGGCAGCGTCGC
CGCCGTGGTAGCAGCCTCAGCCGTTTTCTGGAGTCTCGGGCCACAGTCACCGCCGCTTACCTGCGCCTCCTCGAG
CCTCCGGAGTCCCCGTCCGCCCGCACAGGCCGTTTCGCCGTCTGCGTCTCCCCACGCCGCTCGCCTGCCGCCG
CGCTCGTCCCTCCGGGCCGACATGAGTGGGGACCACCTCCACAACGATTCCCAGATCGAAGCGGATTTCCGATTG
AATGATTCTCATAAACACAAAAGATAAACACAAAGATCGAGAACACCGGCACAAAGAACACAAGAAGGAGAAGGAC
CGGAAAAGTCCAAGCATAGCAACAGTGAACATAAAGATTCTGAAAAGAAACACAAAGAGAAGGAGAAGACCAAA
CACAAAGATGGAAGCTCAGAAAAGCATAAAGACAAACATAAAGACAGAGACAAGGAAAAACGAAAAGAGGAAAAAG
GTTTCGAGCCTCTGGGGATGCAAAAAATAAGAAGGAGAAGGAAAAATGGCTTCTCTAGTCCACCACAAATTAAGAT
GAACCTGAAGATGATGGCTATTTTGTCTCTCTAAAGAGGATATAAAGCCATTAAAGAGACCTCGAGATGAGGAT
GATGCTGATTATAAACCTAAGAAAAATTAACAGAGATACCAAGAAGGAGAAGAAAAAGAACTAGAAGAAGAA
GAGGATGGTAAATTGAAAAACCCAAGATAAAGATAAAGATAAAAAAGTTCTCTGAGCCAGATAACAAGAAAAAG
AAGCCGAAGAAAGAAGAGGAACAGAAAGTGGAAATGGTGGGAAGAAGAGCGCTATCTGAAGGCATCAAGTGGAAA
TTCTTAGAACATAAAGGTCCAGTATTTGCCCCACCATATGAGCCTCTTCCAGAGAATGTCAAGTTTTATTATGAT
GGTAAAGTCATGAAGCTGAGCCCCAAAGCAGAGGAAGTAGCTACGTTCTTTGCAAAAAATGCTCGACCATGAATAT
ACTACCAAGGAAATATTTAGGAAAAATTTCTTTAAAGACTGGAGAAAGGAAATGACTAATGAAGAGAAGAATATT
ATCACCAACCTAAGCAAATGTGATTTTACCCAGATGAGCCAGTATTTCAAAGCCCAGACGGAAGCTCGGAAACAG
ATGAGCAAGGAAGAGAACTGAAAAATCAAGAGGAGAATGAAAAATTACTGAAAGAATATGGATTCTGTATTATG
GATAACCACAAAGAGAGGATTGCTAACTTCAAGATAGAGCCTCTTGACTTTTCCGTGGCCGCGGCAACCACCCC
AAGATGGGCATGCTGAAGAGACGAATCATGCCCGAGGATATAATCATCAACTGTAGCAAAGATGCCAAGGTTCTCT
TCTCTCTCTCCAGGACATAAGTGGAAAGAAGTCCGGCATGATAACAAGGTTACTTGGCTGGTTTCTCTGGACAGAG
AACATCCAAGGTTCCATTAAATACATCATGCTTAACCCTAGTTTACGAATCAAGGGTGAGAAGGACTGGCAGAAA
TACGAGACTGCTCGGCCGGCTGAAAAATGTGTGGACAAGATCCGGAACCAGTATCGAGAAGACTGGAAGTCCAAA
GAGATGAAAGTCCGGCAGAGAGCTGTAGCCCTGTACTTTCATCGACAAGCTTGCTCTGAGAGCAGGCAATGAAAAG
GAGGAAGGAGAAACAGCGGACACTGTGGGCTGCTGCTCACTTTCGTGTGGAGCACATCAATCTACACCCAGAGTTG
GATGGTCAGGAATATGTGGTAGAGTTTGACTTCTCGGGAAGGACTCCATCAGATACTATAACAAGGTCCCTGTT
GAGAAACGAGTTTTTAAGAACCTACAACCTATTTATGGAGAACAAGCAGCCCGAGGATGATCTTTTTGATAGACTC
AATACTGGTATTCTGAATAAGCATCTTCAGGATCTCATGGAGGGCTTGACAGCCAAGGTATTCCGTACATACAAT
GCCTCCATCACGCTACAGCAGCAGCTAAAAGAACTGACAGCCCCGGATGAGAACATCCAGCGAAGATCCTTTCT
TATAACCGTGCCAATCGAGCTGTTGCAATTCTTTGTAACCATCAGAGGGCACCACCAAAAACCTTTTGAGAAGTCT
ATGATGAACCTTGCAAACCTAAGATTGATGCCAAGAAGGAACAGCTAGCAGATGCCCGGAGAGACCTGAAAAGTGCT
AAGGCTGATGCCAAGGTCATGAAGGATGCAAAGACGAAGAAGGTAGTAGAGTCAAAGAAGAAGGCTGTTTCAGAGA
CTGGAGGAACAGTTGATGAAGCTGGAAGTTCAAGCCACAGACCGAGAGGAAAAATAACAGATTGCCCTGGGAACC
TCCAAACTCAATTATCTGGACCTAGGATCACAGTGGCTTGGTGCAAGAAGTGGGGTGTTCCCAATTGAGAAGATT
TACAACAAAACCCAGCGGGAGAAGTTGCCTGGGCCATTGACATGGCTGATGAAGACTATGAGTTTTAGCCAGTC
TCAAGAGGCAGAGTTCTGTGAAGAGGAACAGTGTGGTTTGGGAAAGATGGATAAACTGAGCCTCACTTGCCCTCG
TGCCTGGGGGAGAGAGGCAGCAAGTCTTAACAAACCAACATCTTTGCGAAAAGATAAACTGGAGATATTATAAG
GGAGAGCTGAGCCAGTTGCTCTATGGACAACCTATTTAAAAATATTTTCAAGATATCAAAATTTCTAGCTGTATGATT
TGTTTTGAATTTTGTTTTTATTTTCAAGAGGGCAAGTGGATGGGAATTTGTCAGCGTTCTACCAGGCAAATTCAC
TGTTTCACTGAAATGTTTGGATTCTCTTAGCTACTGTATGCAAAGTCCGATTATATTGGTGCGTTTTTACAGTTA
GGGTTTTGCAATAACTTCTATATTTAATAGAAATAAATTCCTAAACTCCCTTCCCTCTCTCCCATTTTCAAGGAAT
TTAAATTAAGTAGAACAAAAAACCCAGCGCACCTGTTAGAGTCGTCACCTCTCTATTGTTCATGGGGATCAATTTT
CATTAACTTGAAGCAGTCGTGGCTTTGGCAGTGTTTTGGTTTCAGACACCTGTTTACAGAAAAAGCATGATGGGA
AAATATTTCTGACTTGAGTGTCTCTTTTAAATGTGAATTTTTATTTCTTTTTTAATTATTTTAAAAATTTTAAA
CCTTTTTCTTGATCTTAAAGATCGTGTAGATTGGGGTTGGGGAGGGATGAAGGGCGAGTGAATCTAAGGATAATG
AAATAATCAGTGAAGTGAACCATTTTCCCATCATCCTTTGTTCTGAGCATTGCTGTACCCTTTAAGATATCCAT
CTTTTTCTTTTTAACCCTAATCTTTCACTTGAAAGATTTTATTGTATAAAAAGTTTCACAGGTCAATAAACTTAG
AGGAAAATGAGTATTTGGTCCAAAAAAAGGAAAAATAATCAAGATTTTAGGGCTTTTATTTTTCTTTTGTAAAT
GTGTA AAAATGGA AAAAACATAAAAAGCAGAATTTTAATGTGAAGACATTTTTTGCTATAATCATTAGTTTTA

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FIGURE 94B

GAGGCATTGTTAGTTTAGTGTGTGTGCAGAGTCCATTTCCCACATCTTCCTCAAGTATCTTCTATTTTTATCAT
GAATTCCTTTTAATCAACTGTAGGTTATTTAAAA TAAATTCCTACAACCTAATGGAAA

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FIGURE 95

MSGDHLHND SQIEAD FRLNDSHKKHDKHKDREHRHKEHKKEKDREKSKHSNSEHKDSEKKHKEKEKTKHKDGSSE
KHKDKHKDRDKEKRKEEKVRASGDAKIKKEKENGFSPPQIKDEPEDDGYFVPPKEDIKPLKRPRDEDDADYKPK
KIKTEDTKKEKKRKLEEEEDGKLKKPKNKDKDKKVPEDNKKKKPKKEEQKWKWWEERYPEGIKWKFLCHKGP
VFAPPYEPLPENVKFYDGVKMLSPKAEVATFFAKMLDHEYTTKEIFRKNFFKDWRKEMTNEEKNIITNLSKC
DFTQMSQYFKAQTEARKQMSKEEKLKIKEENEKLLKEYGFCIMDNHKERIANFKIEPPGLFRGRGNHPKMGMLKR
RIMPEDI I INCSKDAKVPSPPPGHKKWEVRHDNKVTWLVSWTENIQGSIKYIMLNPSSRIKGEKDWQKYETARRL
KKCVDKIRNQYREDWKSKEKVRQRAVALYFIDKLALRAGNEKEEGETADTVGCCSLRVEHINLHPELDGQEYVV
EFDLGLKDSIRYYNKVPVEKRVFKNLQLFMENKQPEDDLFDRLNTGILNKHLDLMEGLTAKVFTYNASITLQQ
QLKELTAPDENIPAKILSYNRRANRAVAI LCNHQRAPPKTFEKSMMNLQTKIDAKKEQLADARRDLKSAKADAKVM
KDAKTKKVESKKKAVQRL EEQLMKLEVQATDREENKQIALGT SKLNYLDPRI TVAWCKKWGVPIEKIYNKTQRE
KFAWAIDMADEYEF

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FIGURE 96

GAATTCGCTTTGGATCCATTTCCATCGGTCCTTACAGCCGCTCGTCAGACTCCAGCAGCCAAGATGGTGAAGCAG
ATCGAGAGCAAGAÇTGCTTTTCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCC
ACGTGGTGTGGGCCCTTGCAAAATGATCAACCCTTTCTTTCATTCCCTCTCTGAAAAGTATTCCAACGTGATATTC
CTTGAAGTAGATGTGGATGACTGTCAGGATGTTTGCTTCAGAGTGTGAAGTCAAATGCACGCCAACATTCCAGTTT
TTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCAATAAGGAAAAGCTTGAAGCCACCATTAATGAATTA
GTCTTAATATGTTTTCTGAAAACATAACCAGCCATTGGCTATTTAAACTTGTATTTTTTTATTTACAAAATATAA
ATATGAAGACATAACCAGTTGCCATCTGCGTGACAATAAACATTATGCTAA

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FIGURE 97

MVKQIESKTAFQEALDAAGDKLVVDFSATWCGPCKMINPFFHSLSEKYSNVIFLEVDVDDCQDVASECEVKCTP
TFQFFKKGQKVGEFSGANKEKLEATINELV

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FIGURE 98

GCCGCTCGCTCGGCTCCGCTCCCTGGCTCGGCTCCCTGCCTCCGCGTCGCAGCCCCGCGTAGCCGCCTCCGAG
CCCGCCGCCACATCCTCTGAGAAGATGGCTGTGCCACCCACGTATGCCGATCTTGGCAAATCTGCCAGGGATGTC
TTCACCAAGGGCTATGGATTTGGCTTAATAAAGCTTGATTTGAAAACAAAATCTGAGAATGGATTGGAATTTACA
AGCTCAGGCTCAGCCAACACTGAGACCACCAAAGTGACGGGCAGTCTGGAAACCAAGTACAGATGGACTGAGTAC
GGCCTGACGTTTACAGAGAAAATGGAATACCGACAATACACTAGGCACCGAGATTACTGTGGAAGATCAGCTTGCA
CGTGGAAGCTGACCTTCGATTATCCTTCTCACCTAACACTGGGAAAAAAAAATGCTAAAATCAAGACAGGG
TACAAGCGGGAGCACATTAACCTGGGCTGCGACATGGATTTGACATTGCTGGGCCCTTCCATCCGGGGTGCTCTG
GTGCTAGGTTACGAGGGCTGGCTGGCCGGCTACCAGATGAATTTTGAGACTGCAAAATCCCAGGTGACCCAGAGC
AACTTTGCAGTTGGCTACAAGACTGATGAATTCCAGCTTCACACTAATGTGAATGACGGGACAGAGTTTGGCGGC
TCCATTTACCAGAAAGTGAACAAGAAGTTGGAGACCGCTGTCAATCTTGCCTGGACAGCAGGAAACAGTAACACG
CGCTTCGGAATAGCAGCCAAGTATCAGATTGACCTGACGCCCTGCTTCTCGGCTAAAGTGAACAACTCCAGCCTG
ATAGGTTTAGGATACACTCAGACTCTAAAGCCAGGTATTAAACTGACACTGTCAGCTCTTCTGGATGGCAAGAAC
GTCAATGCTGGTGGCCACAAGCTTGGTCTAGGACTGGAATTTCAAGCATAAATGAATACTGTACAATTGTTTAAT
TTTAAACTATTTTGCAGCATAGCTACCTTCAGAATTTAGTGTATCTTTTAATGTTGTATGTCTGGGATGCAAGTA
TTGCTAAATATGTTAGCCCTCCAGGTTAAAGTTGATTACGCTTTAAGATGTTACCCTTCCAGAGGTACAGAAGAA
ACCTATTTCCAAAAAAGGTCCTTTCAGTGGTAGACTCGGGGAGAACTTGGTGGCCCCCTTTGAGATGCCAGGTTTC
TTTTTTATCTAGAAATGGCTGCAAGTGGAAGCGGATAATATGTAGGCACCTTGTAAATTCATATTGAGTAAATGA
ATGAAATTGTGATTTCTGAGAATCGAACCTTGGTTCCTTAACCCTAATTGATGAGAGGCTCGCTGCTTGATGGT
GTGTACAACTCACCTGAATGGGACTTTTTTAGACAGATCTTCATGACCTGTTCCCAACCCAGTTCATCATCATC
TCTTTTACACCAAAAGGTCTGCAGGGTGTGGTAACGTCTTCTTTTGTGCCATTTTGGGGTGGAGAAGGTGGATGT
GATGAAGCCAATAATTCAGGACTTATTCCTTCTTGTGTTGTGTTTTTTTTTGGCCCTTGCACCAGAGTATGAAAT
AGCTTCCAGGAGCTCCAGCTATAAGCTTGGAAGTGTCTGTGTGATTGTAATCACATGGTGACAACACTCAGAATC
TAAATTGGACTTCTGTTGTATTCTCACCCTCAATTTGTTTTTTAGCAGTTTAATGGGTACATTTTAGAGTCTTC
CATTTTGTGGAATTAGATCCTCCCCTTCAAATGCTGTAATTAACAACACTTAAAAAACTTGAATAAAATATTGA
AACCTC

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FIGURE 99

MAVPPTYADLGKSARDVFTKGYGFGLIKLDLKTSENGLEFTSSGSANTETTKVTGSLETKYRWTEYGLTFTEKW
NTDNTLGTEITVEDQLARGLKLTFDSSFSPNTGKKNAIKTGYKREHINLGCDMDFDIAGPSIRGALVLGYEGWL
AGYQMNFE TAKSRVTQSNFAVGKYKTDEFQLHTNVNDGTEFGGSIIYQVNNKKLETAVNLAWTAGNSNTRFGIAAKY
QIDPDACFSKVNNSLIGLGYTQTLKPGIKLTLSALLDGKNVNAGGHKLGLGLEFQA

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FIGURE 100

GCTCACTGAGCACCGTCCCAGCATCCGGACACCACAGCGGCCCTTCGCTCCACGCAGAAAACCACACTTCTCATA
CCTTCACTCAACACTTCCTTCCCCAAAGCCAGAAG~~ATC~~CACAAGGAGGAACATGAGGTGGCTGTGCTGGGGGCAC
CCCCCAGCACCATCCTTCCAAGGTCCACCGTGATTAACATCCACAGCGAGACCTCCGTGCCCCGACCATGTCGTCT
GGTCCCTGTTCAACACCCTCTTCTTGAAGTGGTGCTGTCTGGGCTTCATAGCATTTCGCCTACTCCGTAAAGTCTA
GGGACAGGAAGATGGTTGGCGACGTGACCGGGGCCAGGCCTATGCCTCCACCGCCAAGTGCCTGAACATCTGGG
CCCTGATTCTGGGCATCCTCATGACCATTGGATTTCATCCTGTTACTGGTATTTCGGCTCTGTAACAGTCTACCATA
TTATGTTACAGATAATACAGGAAAAACGGGGTTACT~~TAG~~TAGCCGCCCATAGCCTGCAACCTTTGCACTCCACTGT
GCAATGCTGGCCCTGCACGCTGGGGCTGTTGCCCCTGCCCCCTTGGTCCTGCCCTAGATACAGCAGTTTATACC
CACACACCTGTCTACAGTGTCAATCAATAAAGTGCACGTGCTTGTGA

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FIGURE 101

MHKEEHEVAVLGAPPSTILPRSTVINIHSETSVPDHVVWSLFNTLFLNWCCLGFI AFAYSVKSRDRKMVGDTVGA
QAYASTAKCLNIWALILGILMTIGFILLVFGSVTVYHIMLQIIQEKG Y

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FIGURE 102

GGACACCGGGCCATGACACGCCCCCAACTGAAGCTGCATCTCAAAGCCGAAGATTCCAGCAGCCCCAGGGGATTTC
 AAGAGCTCAGACTCAGAGGAACATCTGCGGAGAGACCCCCGAAGCCCTCTCCAGGGCAGTCCCTATCCAGACGCT
 CCGCTAGTGCAGACAGGAGCGCGCAGTGGCCCCGGCTCGCCGCGCCATCGAGCGGATCCCCAGCGCGCAACCACC
 CCCCCTGCTGCCCCAAAGCACCAGGACTGGAGCACGGAGACCTACCAGGGATGTACCCCTGCCACATGTACCA
 AGTGTACAAGTCAAGACGGGGAATAAAGCGGAGCGAGGACAGCAAGGAGACCTACAAATTGCCGCACCGGCTCAT
 CGAGAAAAAGAGACGTGACCGGATTAACGAGTGCA TCGCCCAGCTGAAGGATCTCCTACCCGAACATCTCAAAC
 TACAACCTTTGGGTCACTTTGGAAAAAGCAGTGGTTC TTGAACCTTACCTTGAAGCATGTGAAAGCACTAACAAACCT
 AATTGATCAGCAGCAGCAGAAAAATCATTGCCCTGCAGAGTGGTTTACAAGCTGGTGAGCTGTGAGGGAGAAAAATG
 CGAAACAGGTCAAGAGATGTTCTGCTCAGGTTTCCAGACATGTGCCCGGGAGGTGCTTCAGTATCTGGCCAAGCA
 CGAGAACACTCGGGACCTGAAGTCTTCGCAGCTTG TCACCCACCTCCACCGGGTGGTCTCGGAGCTGCTGCAGGG
 TGGTACCTCCAGGAAGCCATCAGACCCAGCTCCCCAAAGTGATGGACTTCAAGGAAAAAACCCAGCTCTCCGGCCAA
 AGGTTTCGGAAGGTCTTGGGAAAAACTGCGTGCCAG TCATCCAGCGGACTTTCGCTCACTCGAGTGGGGAGCAGAG
 CGGCAGCGACACGGACACAGACAGTGGCTATGGAGGAGAAATCGGAGAAGGGCGACTTGCGCAGTGAGCAGCCGTG
 CTTCAAAGTGACCACGGACGCAGGTTACGATGGGAGAAAGGATCGGCGCAATTAAGCAAGAGTCCGAAGAACC
 CCCCACAAAAAAGAACC GGATGCAGCTTTCGGATGATGAAGGCCATTTCACTAGCAGTGACCTGATCAGCTCCCC
 GTTCTTGGGGCCACACCCACACCAGCCTCCTTTCTGCTGCCCTTCTACCTGATCCCACTTCAGCGACTGCCTA
 CTTGCCCATGCTGGAGAAGTGCTGGTATCCCACTCAGTGCCAGTGCTATACCCAGGCCTCAACGCCTCTGCCGC
 AGCCCTCTCTAGCTTCATGAACCCAGACAAGATCTCGGCTCCCTTGCTCATGCCCCAGAGACTCCCTTCTCCCTT
 GCCAGCTCATCCGTCCGTGCACTCTTCTGTCTTGC TCCAAGCTCTGAAGCCAATCCCCCTTTAAACTTAGAAAC
 CAAAGACTAAACTCTCTAGGGGATCTGCTGCTTTGCTTTCTTCC TCGCTACTTCTTAAAAAGCAACAAAAAAG
 TTTTGTGAATGCTGCAAGATTGTTGCATTGTGTA TACTGAGATAATCTGAGGCATGGAGAGCAGATTACGGGTG
 TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATGTGCGTGTGCGTGACATGTGTGCCGTGCGTGTGGTATAGGACTTT
 AAAGCTCCTTTTGGCATAGGGAAGTCACGAAGGATTGCTTGACATCAGGAGACTTGGGGGGGATTGTAGCAGACG
 TCTGGGCTTTTCCCCACCCAGAGAATAGCCCCCTTCGATACACATCAGCTGGATTTTCAAAGCTTCAAAGTCTT
 GGTCTGTGAGTCACTCTTCAGTTTGGGAGCTGGGTCTGTGGCTTTGATCAGAAGGTACTTTCAAAGAGGGCTTT
 CCAGGGCTCAGCTCCCAACCAGCTGTTAGGACCCCACTTTTGCTTTATTGTGCGACGTGACTCACCAGACGTC
 GGGGAGAGAGAGCAGTCAGACCGAGCTTTCTGCTAACATGGGGAGGTAGCAGGCACTGGCATAGCACGGTAGTGG
 TTTGGGGAGGTTTCCGCAGGTCTGCTCCCCACCCC TGCTCGGAAGAAATAAGAGAAATGTAGTTCCCTACTCAGG
 CTTTCGTAGTGATTAGCTTACTAAGGAACTGAAAA TGGGCCCCCTTGACAAAGCTGAGCTGCCCCGAGGGAGGGA
 GGAGTTCCCTGGGCTTCTGGCACCTGTTTCTAGGCC TAACCATTAGTACTTACTGTGCAGGGAACCAACCAAGG
 TCTGAGAAATGCGGACACCCCGAGCGAGCACCCCAAGTGACAAAGCTGAGTAAAAAGCTGCCCCCTTCAAACA
 GAACTAGACTCAGTTTTCAATTCCATCCTAAAACTCCTTTTAACCAAGCTTAGCTTCTCAAAGGCCTAACCAAGC
 CTTGGCACCGCCAGATCCTTTCTGTAGGCTAATTCCCTTGTGCCAACGGCATATGGAGTGTCTTATTGTCTAAAA
 AGGATTCCGTCTCCTTCAAAGAAGTTTTATTTTTTGGTCCAGAGTACTTGTTTTTCCCGATGTGTCCAGCCAGCTCC
 GCAGCAGCTTTTTCAAGATGCACATAGCCTGATTGCTGTATCGTGTTTTAACTTTTTCTTTTCTGTTTTTTATTTTG
 GTATTAAGTCGTTGCCCTTATTTGTAAAAGCTGTTA TAAATATATATTATATAAAATATATTAATAAAGGAAAAATGTT
 TCAGATGTTTATTTGTATAATTACTTGATTACACAGTGAGAAAAAATGAATGTATTCTGTTTTTTGAAGAGAAG
 AATAATTTTTTTTTTCTCTAGGGAGAGGTACAGTGT TTATATTTTGGAGCCTTCTGAAGGTGTAAAAATGTAAAT
 ATTTTTATCTATGAGTAAATGTTAAGTAGTTGTTTT TAAAAACTTAATAAAAAAATTTCTTTTCTGTGGGAAG

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FIGURE 103

MERIPSAQPPFACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL
KDLLPEHLKLTTLGHLEKAVVLELTTLKHVKALTNLIDQQQKI IALQSGLQAGELSGRNVETGQEMFCSGFQTCA
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPKNCPVVIQR
TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGA IKQESEEPPTKKNRMQLSDDEGH
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKWCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL
LMPQRLPSPLPAHPSVDSSVLLQALKPIPPLNLETKD

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FIGURE 104

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCCGGAGCGCCCCGGAGCCCCCGCCGTCCC
GCCCCGCGGCGTCCCGCGCCCCGCGCCAGCGCACCCCGGACGCTATGGCCACCCCTCCGGCTGGCCCCCTTCTG
TAGGATGGTAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA
ACCTTCCTCCTCTTCTCCTCCTCGCCCCGCGGCCCCCGCGCGCCCCGCGGCCGTGCCCCGCGGTCCCGGCCCGGC
CCCCGGCGACACGCACATTCCGCACATTCCGTTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT
GGACGCCTGCGGATTCTACTGGGGGCCCCCTGAGCGTGACGCGGCGCACGAGCGGCTGCGCGCCGAGCCCGTGGG
CACCTTCCTGGTGCAGCAGCCGCCAGCGGAAGTCTTTTCGCCCTTAGCGTGAAGATGGCCTCGGGACCCAC
GAGCATCCGCGTGCACTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA
GCTGCTGGAGCACTACGTGGCGGCGCGCCGCGCATGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGCGGCCGCT
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT
CCTCCGCGACTACCTGAGCTCCTTCCCCCTTCCAGATTTGACCGGCAGCGCCCGCCGTGCACGCAGCATTAACTGG
GATGCCGTGTTATTTTGTATTACTTGCCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTGGAGGGAGCGGA
TGGGTGTAGGGGCGAGGCGCCTCCCGCCCTCGGCTGGAGACGAGGCCGAGACCCCTTCTCACCTCTTGAGGGGG
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT
GAACTCGCACCTCCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACCAGGGGTTGGGGGAGGGTC
TCTGGCTTTATTTTTCTGCTGTGCAGAATCCTATTTTATATTTTTTAAAGTCAGTTTAGGTAATAAACTTTATTA
TGAAAGTTTTTTTTT

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FIGURE 105

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPVLRDYLSSFPFQI

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FIGURE 106

CCTTCATACCGGCCCTTCCCCTCGGCTTTGCCTGGACAGCTCCTGCCTCCCGCAGGGCCACCTGTGTCCCCAG
CGCCGCTCCACCCAGCAGGCCTGAGCCCCTCTCTGCTGCCAGACACCCCTGCTGCCCCTCTCTGCTGCTCGG
GTTCTGAGGCACAGCTTGTCACACCGAGGCGGATTCTCTTTCTCTTTCTCTTCTGGCCACAGCCGCAGCAATGG
CGCTGAGTTCTCTGCTGGAGTTTCCTGCTAGCTGGGTTCCCAGCTGCCGGTCTGAGCCTGAGGCATGGAGC
CTCCTGGAGACTGGGGGCTCTCTCCCTGGAGATCCACCCCAAGAACCGACGTCTTGAGGCTGGTGTGTATCTCA
CCTTCCTGGGAGCCCCCTGCTACGCCCCAGCTCTGCCGTCTGCAAGGAGGACGAGTACCCAGTGGGCTCCGAGT
GCTGCCCCAAGTGCAGTCCAGGTTATCGTGTGAAGGAGGCCTGCGGGGAGCTGACGGGCACAGTGTGTGAACCT
GCCCTCCAGGCACCTACATTGCCACCTCAATGGCCTAAGCAAGTGTCTGCAGTGCCAAATGTGTGACCCAGCCA
TGGGCCTGCGCGCGAGCCGGAACCTGCTCCAGGACAGAGAACGCCGTGTGTGGCTGCAGCCCAGGCCACTTCTGCA
TCGTCCAGGACGGGGACCACTGCGCCGCGTGCCGCGCTTACGCCACCTCCAGCCCGGGCCAGAGGGTGCAGAAGG
GAGGCACCGAGAGTCAGGACACCTGTGTGACAAC TGCCCCCGGGGACCTTCTCTCCCAATGGGACCTGGAGG
AATGTCAGCACCAGACCAAGTGCAGCTGGCTGGTGCAGAAGGCCGAGCTGGGACCAGCAGCTCCCACTGGGTAT
GGTGGTTTCTCTCAGGGAGCCTCGTCATCGTCATTGTTTGCTCCACAGTTGGCCTAATCATATGTGTGAAAAGAA
GAAAGCCAAGGGGTGATGTAGTCAAGGTGATCGTCTCCGTCCAGCGGAAAAGACAGGAGGCAGAAGGTGAGGCCA
CAGTCATTGAGGCCCTGCAGGCCCTCCGGACGTCAACACGGTGGCCGTGGAGGAGACAATACCCTCATTACGG
GGAGGAGCCCAAACCACTGACCCACAGACTCTGCACCCGACGCCAGAGATACTGGAGCGACGGCTGCTGAAAG
AGGCTGTCCACCTGGCGAAACCACCGAGCCCGGAGGCTTGGGGGCTCCGCCCTGGGCTGGCTTCCGTCTCCTCC
AGTGGAGGGAGAGGTGGGGCCCTGCTGGGGTAGAGCTGGGGACGCCACGTGCCATTCCCATGGGCCAGTGAGGG
CCTGGGGCTCTGTTCTGCTGTGGCCTGAGCTCCCCAGAGTCTCTGAGGAGGAGCGCCAGTTGCCCCCTCGCTACA
GACCACACACCCAGCCCTCCTGGGGCAGCCAGAGGGCCCTTCAGACCCAGCTGTCTGCGCGTCTGACTCTTGT
GGCCTCAGCAGGACAGGCCCCGGGCACTGCCTCACAGCCAAGGCTGGACTGGGTGGCTGCAGTGTGGTGTTTAG
TGGATACCACATCGGAAGTGATTTTCTAAATTGGA TTTGAATTCCGGTCTGTCTTCTATTTGTATGAAACAGT
GTATTTGGGGAGATGCTGTGGGAGGATGTAAATATCTTGTTTCTCTCAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 107

MEPPGDWGPWPWRSTPRTDVLRLVLYLTFLGAPCYAPALPSCKEDEYPVGSECCPKCSPGYRVKEACGELTGTV
EPCPPGTYYIAHLNGLSKCLQCQMCDPAMGLRASRNCSTENAVCGCSPGHFCIVQDGDHCAACRAYATSSPGQRV
QKGGTESQDTLCQNCPPGTFSPNGTLEECQHQTCSWLVTKAGAGTSSSHWVWWFLSGSLVIVIVCSTVGLIICV
KRRKPRGDVVKVIVSVQRKRQEAEGEATVIEALQAPPDVTTVAVEETIPSF TGRSPNH

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FIGURE 108

CCACGCGTCCGTGCTTTTTCCACAGAAGGTTAGACCCTGAAAGAGATGGCTCAGCACCACCTATGGATCTTGCTCC
TTTGCCTGCAAACCTGGCCGGAAGCAGCTGGAAAAGACTCAGAAATCTTCACAGTGAATGGGATTCTGGGAGAGT
CAGTCACTTTCCCTGTAAATATCCAAGAACCACGGCAAGTTAAAATCATTGCTTGGACTTCTAAAACATCTGTTG
CTTATGTAACACCAGGAGACTCAGAAACAGCACCCGTAGTTACTGTGACCCACAGAAATTATTATGAACGGATAC
ATGCCCTTAGGTCCGAACCTACAATCTGGTCATTAGCGATCTGAGGATGGAAGACGCAGGAGACTACAAAGCAGACA
TAAATACACAGGCTGATCCCTACACCACCACCAAGCGCTACAACCTGCAAATCTATCGTCGGCTTGGGAAACCAA
AAATTACACAGAGTTTAATGGCATCTGTGAACAGCACCTGTAATGTCACACTGACATGCTCTGTAGAGAAAGAAG
AAAAGAATGTGACATACAATTGGAGTCCCCTGGGAGAAGAGGGTAATGTCTTCAAATCTTCCAGACTCCTGAGG
ACCAAGAGCTGACTTACACGTGTACAGCCCAGAACCCTGTCAGCAACAATTCTGACTCCATCTCTGCCCGGCAGC
TCTGTGCAGACATCGCAATGGGCTTCCGTACTCACACACCGGGTTGCTGAGCGTGCTGGCTATGTTCTTTCTGC
TTGTTCTCATTCTGTCTTCAGTGTTTTTGTTCGTTTGTTCAGAGAAGACAAGATGCTGCCTCAAAGAAAACCA
TATACACATATATCATGGCTTCAAGGAACACCCAGCCAGCAGAGTCCAGAAATCTATGATGAAATCCTGCAGTCCA
AGGTGCTTCCCTCCAAGGAAGAGCCAGTGAACACAGTTTATTCGGAAGTGCAGTTTGCTGATAAGATGGGGAAG
CCAGCACACAGGACAGTAAACCTCCTGGGACTTCAAGCTATGAAATTGTGATCTAGGCTGCTGGGCTGAATTCTC
CCTCTGGAACTGAGTTACAACCACCAATACTGGCAGGTTCCCTGGATCCAGATCTTCTCTGCCAACTCTTACT
GGGAGATTGCAAACCTGCCACATCTCAGCCTGTAAGCAAAGCAGGAAACCTTCTGCTGGGCATAGCTTGTGCCTAA
ATGGACAAATGGATGCATACCCTTCTGAAATGACTCCCTTCTGAATGAATGACAAAGCAGGTTACCTAGTATAG
TTTTCCCAAACCTCTTCCCATCATAGCACATGTAGAAAATAATATTTTTATGGCACACTGGGATAAACAAGCAAG
ATTGCTCACTTCTGGAAGCTGCATATGACTAGAGGCCTCTTGTGACTGGAGGTAACAACCCTGCCAGTAACGT
GGGAGAAGGGGATCAATATTTTGCACACCTGTAATAGGCCATGGCACACCAGCCAAGATGCTCTGCTCACAGTCA
GTATGTGTGAAGATCCCTGGTGGCTGGCCTTACCACGCATCTTGAGCAAATTAGGAAAATGTACCCTTCGCTTG
AGGCAGATGCAGCCCTTCCCCGAGTGCATGGCTTGGAGAGCAGAATGTGGGCTGCATATAAGCACACTCATCCC
TTTGTCTGGGAATCTTTGTGCAGGGCATAACAGGCTTAGTAAGTCCAAACACAGATGACAGTGCTGTGTGGGTCT
CTGTCAGAGTTGTGGCTCTCAGCCATGTAGACACACTCTCCAAATGGAGTGTTGGAAAATGTTCTTTCTGCAGGG
TCTAGAGACTGCTGGGACACTTTTCTTGGAGTGCTACTTCAGAAGCCTTATAGGATTTTCTTTCTGGCCAAGATT
TCCTTCTGTATCACTCCAAGCAGCCTCAGCAGAAGAAGCAGCCATGCCAGTATTTCCACTCTCCAAAAGGAACCT
GACCAGCTTATATTTCTCACACTTCTGGGGAACCTGGGTATAATCCAACCATCAAAATAGAAGACCTTGCAAGAAG
CAGAGTCATTCTCCAGAAGGAACCTGGGAGATGATGGTGCAGATGATGAAACTGGGTTTCATCCAGTTCCAAAGA
CTCAGAGAACTAGAGTTAAGCTGAGGCAGAGTGCCGCCACCCTGGCATGCCCCACAAACAGATCACCAGCCAGC
TTACACAGGCATTAACTCTCCTCAATGAGGAAGAATCATTCACAACTGAGCAAGACATTTCATATGATCATTTAAG
GAAGTGTTTTCCCTTATGTGTTAGCAAGTATAATCGGCTAACTCCTAAATCCCAATGAATAGTCCTAGGCTGGACA
GCAATGGGCTGCAATTAGGCAGATAAAGACATCAGTCCAGTAAATGAATCCATAGACTCATCTAGCACCACCTA
CCATTAGCACTATGTTAGGAGCTGCAAGGCCCAAAGTAGAAGATGTGCATAATGTCTGCTCTTGTGTAGCTCAG
GAGACAATTCCAGCACAGACACTACAGTTAACGCTGAAGTGCAGCTGCAAGTAATAGCATGAACAGTCAGAAAAA
TACCTTATGAGGGGGCAGGGCTGAAGCTGGGCCTTGAAGGATGGATGAAATTTGGATAGAGAATGAGGAAGACAG
AGGGCCTCCAAGTGAGAGAAGCATGAAAAATGAGCAGGGGCCTGGATCAGTGGGGTGATTTCAGAGCACCTCTCC
AGATGCACCATGCATGCTCACAGTCCCTTGCTATGTGTGGCAGAGTGTCAGCCAGATGTGTGCCCCACCCC
ATGTCCATTTACATGTCCTTCAATGCCACCTCAAAGGTACCTCTTCTGTAAAGCTTTCCCTGGTATCAGGAAT
CAAAATTAATCAGGGATCTTTTCACTGCTGTTTTTCTCTTTGGTCTTCTATCACTAAAACCTCATCTCATT
CAGCCTTACAGCATAACTAATTATTTGTTTTCTTCACTACATTGTACATGTGGGAATTACAGATAAACGGAAGCC
GGCTGGGGTGGTGGCTCACGCCTGTAACCCCAACACTTTGGGAGGCCAAGGCAGGCGGATCACCTGAGGTCAGGA
GTTTCGAGATTAGTCTGGCCAACATGGTGAACCCCATCTCTACTAAAAATACGAAATTAGCCAGGTGTGGTGGCA
CACATCTGTAGTCCCAGCTACTCTGGAGGCTGAGACAGGAGAATCGCTTGAACCCAGGAAGTGAGGTTGCAGTG
AGCTGAGATCACACCACTGCACTCCAGCCTGGGAGAGAGAGAGTGAGTCTCCATCTCAAAAAAAAAAAAAAAAAA

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FIGURE 109

MAQHHLWILLCLQWPEAAGKDSEIFTVNGILGESVTFPVNIQEPRQVKIIAWTSKTSVAYVTPGDSETAPVVT
VTHRNYERIHALGPNYNLVISDLRMEDAGDYKADINTQADPYTTTKRYNLQIYRRLGKPKITQSLMASVNSTCN
VTLTCSVEKEEKNVTYNWSPLGEEGNVLQIFQTPEDQELTYTCTAQNPNVSNNSDSISARQLCADIAMGFRTHHTG
LLSVLAMFFLLVLILSSVFLFRLFKRRQDAASKKTIYTYIMASRNTQPAESRIYDEILQSKVLPSKEEPVNTVYS
EVQFADKMGKASTQDSKPPGTSSYEIVI.

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FIGURE 110A

CACTGGGAGAGTTTATGTGGCCGAGGCAGACAAGTGAATTAGGCCTTGCTGCAGGGGACTTCATTTCTTCTCA
GTACTGGACCCATTTATGAGGAGGTGGCTTATGAAAGTGTGATGTTTCGCGTATTTCTTGACAGGCAGTGGCGTGA
TCTTGGCTCACTGCAACCTCCGACTCCCTGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTGGGGATTACAG
GCCACAGCAAACACAGGTGTGCAGGAACCGTTTGTCATGGGAAGCCAGGGAGCCTGGGAGGCCACACCCACCTAC
CATCTTGTCCTTAACACCAGCCAGTCCCAGGTGGAAGAAGATGTCAGCTCGCCACCTCAAAGGTCCTCCGAACT
ATGCAGCTGAAGAAGGAGATCTCCCTGCTGAATGGGGTCAGCCTGGTGGTGGGCAACATGATCGGCTCAGGGATC
TTTGTCTCACCCAAGGGTGTGCTGGTACACACTGCCTCCTATGGGATGTCAGTATTGTGTGGGCCATTGGTGGG
CTCTTCTCTGTTGTGGGTGCCCTTTGTTATGCAGAGCTGGGGACCACCATACCAAGTCGGGAGCCAGCTACGCT
TATATTCTAGAGGCCTTTGGGGGCTTCATTGCCTTCATCCGCCTGTGGGTCTCACTGCTAGTTGTTGAGCCCACC
GGTCAGGCCATCATCGCCATCACCTTTGCCAACTACATCATCCAGCCGTCCTTCCCCAGCTGTGATCCCCCATAC
CTGGCCTGCCGTCTCCTGGCTGCTGCTTGCCATATGCTGCTGACATTTGTGAAGTGTGCCTATGTCAAGTGGGGC
ACACGTGTGCAGGACACGTTCACTTACGCCAAGGTCGTAGCGCTCATTGCCATCATTGTGTCATGGGCCTTGTTAA
CTGTGCCAGGGACACTCTGAGCACTTTCAGGACGCCCTTGAGGGTTCCCTCCTGGGACATGGGAAACCTCTCTCTT
GCCCTCTACTCTGCCCTCTTCTCTTACTCAGGTTGGGACACCCTTAATTTTGTAACAGAAGAAATCAAAAACCCA
GAAAGAAATTTGCCCTTGCCATTGGGATTCTATGCCAATTGTGACGCTCATCTACATCCTGACCAATGTGGCC
TATTACACAGTGTGAACATTTAGATGTCCTTAGCAGTGATGCTGTGGCTGTGACATTTGCTGACCAGACGTTT
GGCATGTTTCAGCTGGACCATCCCCATTGCTGTTGCCCTGTCTGCTTTGGGGGCTCAATGCATCCATCTTTGCT
TCATCAAGGTTGTTCTTCGTGGGCTCCCGGGAGGGCCACCTACCGGACCTTCTGTCCATGATCCACATTGAGCGT
TTTACACCTATCCCTGCTTTACTGTTCAATTGCACCATGGCACTCATCTACCTCATCGTGGAGGATGTTTTCCAG
CTTATCAACTACTTCAGCTTCAGCTACTGGTTCTTCGTGGGCTGTCTGTTGTTGGACAGCTCTACCTCCGCTGG
AAGGAGCCCAAGCGGCCCCGGCCTCTCAAGCTGAGCGTGTTTTTCCCCATCGTGTTCTGCATATGCTCCGTGTTT
CTGGTGATAGTCCCCCTCTTCACTGACACCATTAAATCCCTCATTGGCATCGGGATTGCCCTTTCTGGAGTCCCT
TTCTACTTCATGGGTGTTTACCTGCCAGAGTCCCGGAGGCCATTGTTTATTCCGAATGTCTGGCTGCTATCACC
AGAGGCACCCAGCAGCTTTGCTTTTGTGTCCTGACTGAGCTTGATGTAGCCGAAGAAAAAAGGATGAGAGGAAA
ACTGACTAGAGGTCAGAGGTGGCTTTCTGAGGCCTGGAAGGCAGGCCAACCAGCAAAATCCTGATAACAAGACTC
TGTGGGCCCCAAGTCTCCTGAATTAAGGAGCCTTTTGACCAATCATATAGTGGGGCTCAGGGCCAGTGCTCACT
CTTATTGGTAAGCTATAGGAGACTCAGGATCTGGGCCAACCTCAAGGTGGGGGCTTCAGAGGGTGGGGGAAGAT
TGGGGAACGGGGGAATGGTCATTTAGTTTTACTCCTGATAGGTAGATGCAGCTCTTACAGATATTTACTTGGTA
AAGTGCAGTGGGGAAGAGGGAATGCTAGGTTGATAGGGCTGGTGGCTTCTGAATTTGGTATTTGAACTAGGAGTC
CCTATAGAGGGGCTGCTTTATGGGAAGTTTTTCTCTGACCAGGTACAACACCTGACTTTAAAGGCCTGAAATGCT
ACCATTTCTTCTCTGGCTCAAAATTTCTTCCCTGGGGAGAGAGTTATATTCCCTTATTTATTGATATTTAGTCCA
GAACACCAGTTCTAACGAAGCATGCGTGTCTCTTCACTACAGGATGCAATAGGCTGATTGTATTTAAAAATCAA
AGTACCCAAAAGTGAAGTCCCTTTGGGCTCAGAAATGTCTGTGGTATTGGGTCAGACTCTGACCACAGATTTTATG
CTGTTTAGCACAAATTTCTATTGAGTCTTACCTGCAACAATGAACCTTAAAGATTTTTTTACTCACGTACCTGTTA
CACTTTAGCATACAGATAGATCATAGATCACGTTACAAGCACTTGGCTCAGGTCCAGCAAGGACAGATGAACAAA
TTCTGAGTCAGAAAGTCTGTTAATATTGCTGTTTTGAAGGACAATCCTTTATTTTACTTGAGACCTTACATCTTT
GTTCTAGCTGACAGTAAATCTCTGGGTTTCTGTTACGAACCTCTAAGAGGGCTGAAACTTCTGATATTCAGGTGGA
TCACCTGAATTTCTCTCAGCTGTCAATGGCTTGGAGAACATCTCATGGGCCCCAAGTCATCAAATAACCTGTTCTCT
TCTGTAAGGGCAGTGTGAGGGACTGCTGTGCAGACCCAAGCAATCCCAACCTGGTGCTAGGTCATTTCACTTTTC
TGAAAACCTCACATCAGGCTGCATCCTCTCTGTCCTGGCACCAGGCTTTGTTTACACTTGAGACCACCTTGGT
GTGGGTCAACGGGACAGTGTACTCTCTCCTGCCAGCCTCCCCCTCCCCGAGGTGTGGTGGCTGCAGTCTCAGGA
AGAGCTTGGTACTTGTGGGGACTTCTGTTTTCTCCCTGTGGAGATCAGTGAAGACTGGGAGGAAAGCTGCTTCAA
CCTGAGTCCGGCTCTTACAGCAGGCTGCACAAGTGAAGCAACTAATCTGGTGCTCAGGCTGGGCTCTCCACCCA
AGTTAGGCCTGCTCTGGCCTAATGGATCTTACTGTATGAGCAGGACGGCTGCATTGGATTGTACAAGTGTGTTGT
GATGCCCCCAGACACTGTATCCTAGGCCGAGAAGAACCTGCTAGCTTGACATACCCCATGGGCTTATCCTTAGG
TTTTGGAATTGGTCAACAGTGAGGCAGTCTCCCTTCTGACCATCTTCTCCACCCAGTCACAGATAAGGGAATA
ACCTTGCCCATATATTGCTCAATAAAGATTGAAGGAAGCATGGTCATAGTTGCCCTGGGTTTCAGAGCATAATGC
ATATGTGAAGCATGGGGTGACATTCTACTGTGTCATGGGTTTGGGATTGTAAACGGCAAATTCCTGCCCGACGACA

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FIGURE 110B

GGGTGTCTTATGCAAAGGCTGACTTGCCTGAACGCTAAGAACATGACTTCTGTCTGAGCTAAGCTGGCACCCATC
CCAGGGCTCCTCTGGAGCTAATCCTTTAAGCAAAATGTGCTTGCCTTTAAAGATCCCTGACCCAGCTTTAGCT
TTCTCCACCAGATAACCAGCTAATCCCAGGAATTTGCTGCCCCCACCAGTGGCTTCTAGGGAAAGCAAGGACCT
CACATGCCAGGTGCCCTAGTACTTGCTTAGTGAGCCATGTCACTCCTTTCATTTTTGGATGGTGACAGCATTT
TTCCCCCTCTGTGCTGGATACAGACTTCTCCCAGGATCCTCTCTTTGGGAGCGAAGCCAGAGGATCCCTACAGCAC
TCAAGCTTCATGGTGGAAATTAATTTCTGCCAGCTCTTTGTTGTCTGTCTCCTTAAATCCTTTTCCTGGTGTGCTT
ATTATCCCTTTTGCAGTGAGTACAGTTTATTAAGTTGTCAGCCCTTAAATATTGGGGAACTTAATGAGTATAAA
TAGCAGGGAGCACATTGTAACAGCACAGTGTGTTTTGTTTTTACCCGGTTGCTGTATGAGAATGGCTTTCAATC
CTTTGTTTCTATGCCTACAGACAGAAAGCAAGATGTCTAATATTAGACATACAAGTTGCTGCCTGTTATAACGGT
GAATTATACCTTTGTGCATGCCTAGGATGTTTGTGTTTTAATTAGCTGCAATATATACGGCCTGTGTACACAGA
ATTTAATCACTTCGGCAGGTTGAACAACCTCATGTAGATAAGAGCAAGTGTAGGCAAAGGTTTAGAAAATGGACA
TAAAGTCAAAGAATGATGGCAGGTAGGATGAAGGAGAGATACTTAGGAAATCCTAAAAGAGGCGCAAGAAGGTA
CCTCCCTGTGTAATCACCTTCCCCATGACAGTAAGAGACACTCACAGGCTATGAGGGTACACCCCTAGCTGAA
TGTTCTGTGTTGTTTCCTTAGACCTGTGGTGTCCGCTGCAACAGCTACTAGCCACGTGTAGCTAATTACATTAAA
ATGAAATAAAATTTAAAGCTCAGTTTCTCAGTTGCGCTAATCACATTTCAAGTGCTCAGCAGCCACCCGTGTCTA
CTACTACACAGTGCAGACACAGAACATATCATCACTGCAGATAGTTCTACTGGACAATGTTACGCTAGAATAAAC
ACCAAGGCAGTCAGTTAAGGCAGCTATGGTTTGGAAAGGCATACGGACAGAGTCTGCTTAGAAGAGATACAAGTT
GTTAATAAAATTTGATCCTGTTGATAGTAGTTTGTGTTTTGTGGTGGGTGCTGTGAAGAGTAAACATTACTCAGTGG
AAAGCTAAGTTTCAAGGTAACCTTTGTTTTTCTCCCTTGCCTTAAGTCCCTGGTATTTATAATCAATGCTGAACC
TTCTATTTCACTACCGCTCCCTGTTTTAGATATTCAGATTTAAAGGTTTTCAAAGAATTACTTTCTTCCATGTT
CAAAGCTAGATTTTACTAAACACATGTATCACATTCATATATATTGTTTCTTGGCCCCACTGCCAAAGGAAGTCA
GTCAGTAATTTCAACAACCGTTATCAGAGTTTGGAAAGCAGAAATAGCTGTTAACTAAAATCTCCCACTGCTCAGAC
TACTTTCTGCCCTAATGGCCATTACTATCCAGTCTGTATTGCTACAAGGGACCCACTGGTACCCCTTTTAGATTCT
TATCAAAAGGAACAGGGTTTTCTAGAGGCAGGCAGCCTGGTGGTATGGCACAGCAGAAGCTTACTGCTAATGAA
ATGGGAACCTCCCCCTCCCTTGTGGTTTTAGCAGACAGAACCTGAATGCCAGGAAAAATTCCTGGGCCAAGAAGCTA
AAGCTAAAGAAACCTTCCTTTTTTCAACGTTTTTTTTCTTTCAAACCTGTAGGGTCACTTTTGATTGAGGCAAAG
GGGTCCCTACTGTAAGTGAAAAGACTCACTCCCCTAACATAAGTTTCACTGTGGTGGGATGGTGCCGCCCGATA
TGCTTGATATGCTTTTCTTCCACATGTTAAGCTAGGAAACCTAACAGGATGTCAGCAGGGCAGTTAACTCTGGA
CTCAGAGCCCTCAAGGGCATGTGGCAGAACCTCATGGACATCACAGACCATCAGTCTGAATCCAGGTCGTGGGG
GCTGTATAGCCGAATCCTTCTGCACATCCAGAGGGTACTTGCTCCACATCCGCTGTCTGCTGCTGCCTCTTTC
CTCCTCACTCAGGCTGTTGTAGTCAGCAGAGCCTAGAATGACATCCCGGGAGTGGATTCTAAATGTGATTTTCTT
AGGCTACTGCAGGAGCCCTTCTCTTCTCAGAAAGGTCTGTTTTTGTTCCTGATTGTAATGCAAAATCCTTGCTC
AATAAATAAAAAAGAATATAGAATCTTTTTTTTTTAAAGAAGGAATCACTTTCCTATCATCTAAACCAAGTTCC
TTCACACTGGAGTATTTTGTCACTTCTCCCTCCGTGGAGTATTTGTCACTTCTCCCTCCGTATAGGATTTTT
TGTTGTTGTAAGAGTTGTAGTCATATTGTAAATATTTTGTACCTTTCTCCTTTTAAACGTGTTATTGACAAACCT
CCCCAAAAGAATATGCAATTGTTTGATTCAATTTCTCTGTTATCAGACACCAATAAATTCCTTTTTGTGGGC

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FIGURE 111

MEAREPGRPTPTYHLPNTSQSQVEEDVSSPPQRSSETMQLKKEISLLNGVSLVVGNMIGSGIFVSPKGVLVHTA
SYGMSLIVWAIGGLFSVVGALCYAELGTTITKSGASYAYILEAFGGFIAFIRLWVSLLVVEPTGQAIITFANY
IIQPSFPPSCDPPYLACRLLAAACICLLTFVNCAVVKWGTRVQDTFTYAKVVALIAIIVMGLVKLCQGHSEHFQDA
FEGSSWDMGNLSLALYSALFSYSGWDTLNFVTEEIKNPERNLPLAIGISMPIVTLIYILTNVAYYTVLNISDVLS
SDAVAVTFADQTFGMFSWTIPIAVALSCFGGLNASIFASSRLFFVGSREGHLPDLLSMIHIERFTPIPALLENCT
MALIYLVIEDVFQLINYFSFSYWFFVGLSVVGQLYLRWKEPKRPRPLKLSVFFPIVFCICSVFLVIVPLFTDTIN
SLIGIGIALSGVPFYFMGVYLPESRRPLFIRNVLAAITRGTQQLCFCVLTELDVAEEKKDERKTD

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FIGURE 112

AGCCTACGCACGAAAGTGACTAGGGAGGAAGGATATTATAAAGTGATGCAAACAGAAATTCCACCAGCCTCCATG
TATCATCATGTGTCATAACTCAGTCAAGCTCAGTGAGCATTCTCAGCACATTGCCICAACAGCTTCAAGGTGAGC
CAGCTCAAGACTTTTGCTCTCCACCAGGCAGAAGATGACAGACTGTGAATTTGGATATATTTACAGGCTGGCTCAG
GACTATCTGCAGTGCGTCCTACAGATAACCACAACCTGGATCAGGTCCAAGCAAAACGTCCAGAGTGCTACAAAAT
GTTGCGTTCTCAGTCCAAAAAGAAGTGGAAGAAGTCTGAAGTCATGCTTGGACAATGTTAATGTTGTGTCCGTA
GACACTGCCAGAACACTATTCAACCAAGTGATGGAAGAAGGAGTTTGAAGACGGCATCATTAAGTGGGAAGAATT
GTAACCATATTTGCATTTGAAGGTATTCTCATCAAGAACTTCTACGACAGCAAATTGCCCCGGATGTGGATACC
TATAAGGAGATTTCATATTTTGTGCGGAGTTCATAATGAATAACACAGGAGAATGGATAAGGCAAAACGGAGGC
TGGGAAATGGCTTTGTAAAGAAGTTTGAACCTAAATCTGGCTGGATGACTTTTCTAGAAGTTACAGGAAAGATC
TGTGAAATGCTATCTCTCCTGAAGCAATACTGTGACACAGAAAGGACACTCCATATTGTGAAACCGGCCTAATTT
TTCTGACTGATATGGAAACGATTGCCAACACATACTTCTACTTTTAAATAAACAACCTTTGATGATGTAACCTTGAC
CTTCCAGAGTTATGGAAATTTTGTCCCATGTAATGAATAAATTGTATGTATTTTCTCT

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FIGURE 113

MTDCEFGYIYRLAQDYLCVLQIPQPGSGPSKTSRVLQNVAFSVQKEVEKNLKSCLDNVNVVSVDIARTLFNQVM
EKEFEDGIINWGRIVTIFAFEGILIKLLRQQIAPDVDTYKEISYFVAEFIMNNTGEWIRQNGGWENG FVKKFEP
KSGWMTFLEVTGKICEMLSLLKQYC

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FIGURE 114A

TAACGAGGAAC TTTTCGCCGGCGCCGGGCGCCTCTGAGGCCAGGGCAGGACACGAACGCGCGGAGCGGGCGGCGG
CGACTGAGAGCCGGGGCGCGGGCGGCGCTCCCTAGGAAGGGCCGTACGAGGCGGCGGGCCCGGCGGGCCTCCCGG
AGGAGGCGGCTGCGCCATGGACGAGCCACCCTTCAGCGAGGCGGCTTTGGAGCAGGCGCTGGGCGAGCCGTGCGA
TCTGGACGCGGCGCTGCTGACCGACATCGAAGACATGCTTCAGCTTATCAACAACCAAGACAGTGACTTCCCTGG
CCTATTTGACCCACCCTATGCTGGGAGTGGGGCAGGGGACAGACCCTGCCAGCCCCGATAACCAGCTCCCCAGG
CAGCTTGTCTCCACCTCCTGCCACATTGAGCTCCTCTCTTGAAGCCTTCCTGAGCGGGCCGAGGCAGCGCCCTC
ACCCCTGTCCCTCCCCAGCCTGCACCCACTCCATTGAAGATGTACCCGTCCATGCCCGCTTTCTCCCTGGGCC
TGGTATCAAGGAAGAGTCAGTGCCACTGAGCATCTGCAGACCCCCACCCACAGCCCCTGCCAGGGGCCCTCCT
GCCACAGAGCTTCCAGCCCCAGCCCCACCGCAGTTTCAGCTCCACCCTGTGTTAGGCTACCCAGCCCTCCGGG
AGGCTTCTCTACAGGAAGCCCTCCCGGGAACACCCAGCAGCCGCTGCCTGGCCTGCCACTGGCTTCCCCGCCAGG
GGTCCCCCGCTCTCCTTGACACCCAGGTCCAGAGTGTGGTCCCCAGCAGCTACTGACAGTCACAGCTGCCCC
CACGGCAGCCCCGTGAACGACCACTGTGACCTCGCAGATCCAGCAGGTCCCGGTCTGCTGCAGCCCCACTTCAT
CAAGGCAGACTCGCTGCTTCTGACAGCCATGAAGACAGACGGAGCCACTGTGAAGCGGCAGGTCTCAGTCCCCT
GGTCTCTGGCACCCTGTGCAGACAGGGCCTTTGCCGACCCTGGTGAGTGGCGGAACCATCTTGGCAACAGTCCC
ACTGGTCGTAGATGCGGAGAAGCTGCCTATCAACCGGCTCGCAGCTGGCAGCAAGGCCCGGCCTCTGCCAGAG
CCGTGGAGAGAAGCGCACAGCCCACAACGCCATTGAGAAGCGCTACCGCTCCTCCATCAATGACAAAATCATTGA
GCTCAAGGATCTGGTGGTGGGCACTGAGGCAAAGCTGAATAAATCTGCTGTCTTGGCGAAGGCCATCGACTACAT
TCGCTTTCTGCAACACAGCAACCAGAACTCAAGCAGGAGAACCTAAGTCTGCGCACTGCTGTCCACAAAAGCAA
ATCTCTGAAGGATCTGGTGTGCGCCTGTGGCAGTGGAGGGAACACAGACGTGCTCATGGAGGGCGTGAAGACTGA
GGTGGAGGACACACTGACCCACCCCCCTCGGATGCTGGCTCACCTTTCCAGAGCAGCCCCCTGTCCCTTGGCAG
CAGGGGCAGTGGCAGCGGTGGCAGTGGCAGTGACTCGGAGCCTGACAGCCCAGTCTTTGAGGACAGCAAGGCAAA
GCCAGAGCAGCGGCCGTCTCTGCACAGCCGGGGCATGCTGGACCGCTCCCGCCTGGCCCTGTGCACGCTCGTCTT
CCTCTGCCTGTCTGCAACCCCTTGGCCTCCTTGTGCGGGGCGGGGGCTTCCAGCCCCCTCAGATACCACCAG
CGTCTACCATAGCCCTGGGCGCAACGTGCTGGGCACCGAGAGCAGAGATGGCCCTGGCTGGGCCCAGTGGCTGCT
GCCCCCAGTGGTCTGGCTGCTCAATGGGCTGTTGGTGTCTCGTCTCCTTGGTGCTTCTCTTTGTCTACGGTGAGCC
AGTCACACGGCCCCACTCAGGCCCCCGCGTGTACTTCTGGAGGCATCGCAAGCAGGCTGACCTGGACCTGGCCCG
GGGAGACTTTGCCCAGGCTGCCCAGCAGCTGTGGCTGGCCCTGCGGGCACTGGGCGGGCCCCCTGCCACCTCCCA
CCTGGACCTGGCTTGTAGCCTCCTCTGGAACCTCATCCGTACCTGCTGCAGCGTCTCTGGGTGGGCCGCTGGCT
GGCAGGCCCGGGCAGGGGGCCTGCAGCAGGACTGTGCTCTGCGAGTGGATGCTAGCGCCAGCGCCCCGAGACGCAGC
CCTGGTCTACCATAAGCTGCACCACTGCACACCATGGGGAAGCACACAGGCGGGCACCTCACTGCCACCAACCT
GGCGCTGAGTGCCCTGAACCTGGCAGAGTGTGCAGGGGATGCCGTGTCTGTGGCGACGCTGGCCGAGATCTATGT
GGCGGCTGCATTGAGAGTGAAGACCAGTCTCCACGGGCCTTGCAATTTCTGACACGCTTCTTCCTGAGCAGTGC
CCGCCAGGCTGCTGGCAGAGTGGCTCAGTGCCTCCTGCCATGCAGTGGCTCTGCCACCCCGTGGGCCACCG
TTTCTTCGTGGATGGGACTGGTCCGTGCTCAGTACCCCATGGGAGAGCCTGTACAGCTTGGCCGGGAACCCAGT
GGACCCCTGGCCAGGTGACTCAGCTATTCCGGGAACATCTCTTAGAGCGAGCACTGAACTGTGTGACCCAGCC
CAACCCAGCCCTGGGTGAGCTGATGGGGACAAGGAATTCTCGGATGCCCTCGGGTACCTGCAGCTGCTGAACAG
CTGTTCTGATGCTGCGGGGCTCCTGCCTACAGCTTCTCCATCAGTTCCAGCATGGCCACCACCACCGGCGTAGA
CCCGGTGGCCAAGTGGTGGGCTCTCTGACAGCTGTGGTGATCCACTGGCTGCGGGCGGATGAGGAGGCGGCTGA
GCGGCTGTGCCCCTGGTGGAGCACCTGCCCGGGTGCTGCAGGAGTCTGAGAGACCCCTGCCAGGGCAGCTCT
GCACTCCTTCAAGGCTGCCCCGGGCCCTGCTGGGCTGTGCCAAGGCAGAGTCTGGTCCAGCCAGCCTGACCATCTG
TGAGAAGGCCAGTGGGTACCTGCAGGACAGCCTGGCTACCACACCAGCCAGCAGCTCCATTGACAAGGCCGTGCA
GCTGTTCTGTGTGACCTGCTTCTTGTGGTGCACACAGCCTGTGGCGGCAGCAGCAGCCCCCGGCCCGGCC
AGCAGCCCAGGGCGCCAGCAGCAGGCCCCAGGCTTCCGCCCTTAGAGTGCCTGGCTTCCAACGGGACCTGAGCAG
CCTGAGGCGGCTGGCACAGAGCTTCCGGCCCGCCATGCGGAGGGTGTTCCTACATGAGGCCACGGCCCGGCTGAT
GGCGGGGGCCAGCCCCACACGGACACACCAGCTCCTCGACCGCAGTCTGAGGCGGGCGGGCAGGCCCGGTGGCAA
AGGAGGCGCGGTGGCGGAGCTGGAGCCGCGGGCCACGCGGCGGGAGCACGCGGAGGCCTTGCTGCTGGCCTCCTG
CTACCTGCCCCCGGCTTCTGTGCGCGCCCGGGCAGCGCGTGGGCATGCTGGCTGAGGCGGCGCGCACACTCGA
GAAGCTTGGCGATCGCCGGCTGCTGCACGACTGTCAGCAGATGCTCATGCGCCTGGGCGGTGGGACCCTGTTCAC

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FIGURE 114B

TTCCAGCTTAGACCCCGTGTCCCCGGCCTCAGCACCCCTGTCTCTAGCCACTTTGGTCCCGTGCAGCTTCTGTCCT
GCGTCGAAGCTTTGAAGGCCGAAGGCAGTGCAAGAGACTCTGGCCTCCACAGTTCGACCTGCGGCTGCTGTGTGC
CTTCGCGGTGGAAGGCCCGAGGGGCGCGATCTTGACCCCTAAGACCGGCGGCCATGATGGTGCTGACCTCTGGTGG
CCGATCGGGGCACTGCAGGGGCCGAGCCATTTTGGGGGGCCCCCTCCTTGCTCTGCAGGCACCTTAGTGGCTTT
TTTCCTCCTGTGTACAGGGAAGAGAGGGGTACATT TCCCTGTGCTGACGGAAGCCAACCTGGCTTTCCCGGACTG
CAAGCAGGGCTCTGCCCCAGAGGCCTCTCTCTCCGTCGTGGGAGAGAGACGTGTACATAGTGTAGGTCAGCGTGC
TTAGCCTCCTGACCTGAGGCTCCTGTGCTACTTTGCCTTTTGCAAACCTTATTTTCATAGATTGAGAAGTTTGT
ACAGAGAATTAAAAATGAAATTATTTATA

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FIGURE 115

MDEPPFSEAALEQALGEPCLDAALLTDIEDMLQLINNQSDSDFPGLFDPYAGSGAGGTDPA SPDTSSPGSLSP
PATLSSSLEAFLSGPQAAPSPLSPPQAPPTPLKMYPSMPAFSPGPGIKEESVPLSILQTPTPQPLPGALLPQSFP
APAPPQFSSTPVLGYPSPPGGFSTGSPPGNTQQPLPGLPLASPPGVPPVSLHTQVQSVVPQQLLTVTAAPTAAPV
TTTVTSQIQQVPVLLQPHFIKADSLLLTAMKTDGATVKAAGLSPLVSGTTVQTGPLPTLVSGGTILATVPLVVDA
EKLPIINRLAAGSKAPASAQSRGEKRTAHNAIEKRYRSSINDKIIELKDLVVGTEAKLNKSAVLRKAIDYIRFLQH
SNQKLKQENLSLRTAVHKSLSKDLVSACGSGGNTDVLMEGVKTEVEDTLTPPPSDAGSPFQSSPLSLGSRGSGS
GGSGSDSEPDSPVFEDSKAKPEQRPSLHSRGM LDRSRLALCTLVFLCLSCNPLASLLGARGLPSPSDTTSVYHSP
GRNVLGTESRDGPGWAQWLLPPVVWLLNGLLVLSLVLLFVYGEVTRPHSGPAVYFWRHRKQADLDLARGDFAQ
AAQQLWLALRALGRPLPTSHLDLACSLWNLIRHLLQRLWVGRWLAGRAGGLQQDCALRVDASASARDAALVYHK
LHQLHTMGKHTGGHLTATNLALSALNLAECAGDAVSATLAEIYVAAALRVKTS LPRALHFLTRFFLSSARQACL
AQSGSVPPAMQWLCHPVGHRFFVDGDWSVLSTPWESLYSLAGNPVDPLAQVTQLFREHLLERALNCVTQPNPSPG
SADGDKEFSDALGYLQLLNCSDAAGAPAYSFSISSSMATTTGVDPVAKWWASLTAVVIHWLRRDEEAAERLCPL
VEHLPRVLQESERPLPRAALHSFKAARALLGCAKAESGPASLTICEKASGYLQDSLATTPASSSIDKAVQLFLCD
LLLVRTSLWRQQOPPAPAPAAQGASSRPQASALELRGFQRDLSLRRLAQSRPAMRRVFLHEATARLMAGASP
TRTHQLLDRSLRRRAGPGGKGGAVAELEPRPTRREHAEALLASCYLPPGFLSAPGQRVGMLAEAAARTLEKLGD
RLLHDCQQMLMRLGGGTTVTSS

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FIGURE 116

CACAGCTCTGCAGCTCGTGGCAGCGGCGCAGCGCTCCAGCC**ATG**TCGCGCGGCCTCCAGCTTCTGCTCCTGAGCT
GCGCCTACAGCCTGGCTCCCGCGACGCCGGAGGTGAAGGTGGCTTGCTCCGAAGATGTGGACTTGCCCTGCACCG
CCCCCTGGGATCCGCAGGTTCCCTACACGGTCTCCTGGGTCAAGTTATTGGAGGGTGGTGAAGAGAGGATGGAGA
CACCCCAGGAAGACCACCTCAGGGGACAGCACTATCATCAGAAGGGGCAAATGGTTCTTTTCGACGCCCCCAATG
AAAGGCCCTATTCCCTGAAGATCCGAAACACTACCAGCTGCAACTCGGGGACATACAGGTGCACTCTGCAGGACC
CGGATGGGCAGAGAAACCTAAGTGGCAAGGTGATCTTGAGAGTGACAGGATGCCCTGCACAGCGTAAAGAAGAGA
CTTTTAAGAAATACAGAGCGGAGATTGTCTGCTGCTGGCTCTGGTTATTTTCTACTTAACACTCATCATTTTCA
CTTGTAAGTTTGCACGGCTACAGAGTATCTTCCCAGATTTTCTAAAGCTGGCATGGAACGAGCTTTTCTCCAG
TTACCTCCCCAAATAAGCATTTAGGGCTAGTGACTCCTCACAAGACAGAAGTGGTAT**AG**AGCAGGATTTCTGCAGG
TTCTTCTTCTGAAGCTGAGGCTCAGGGGTGTGCCGTGTCTGTTACACTGGAGGAGAGAAGAATGAGCCTACGCTG
AAGATGGCATCCTGTGAAGTCCTTACCTCACTGAAAACATCTGGAAGGGGATCCACCCCCATTTTCTGTGGGCA
GGCCTCGAAAACCATCACATGACCACATAGCATGAGGCCACTGCTGCTTCTCCATGGCCACCTTTTACGCGATGT
ATGCAGCTATCTGGTCAACCTCCTGGACATTTTTCAGTCATATAAAAGCTATGGTGAGATGCAGCTGGAAAAGG
GTCTTGGGAAATATGAATGCCCCAGCTGGCCCGTGACAGACTCCTGAGGACAGCTGTCTCTTCTGCATCTTGG
GGACATCTCTTTGAATTTTCTGTGTTTGTCTGTACCAGCCAGATGTTTTACGTCTGGGAGAAATTGACAGATCA
AGCTGTGAGACAGTGGGAAATATTTAGCAAATAATTTCTGGTGTGAAGGTCTCTGCTATTACTAAGGAGTAATCT
GTGTACAAAGAAATAACAAGTCGATGAAGTATTTCCAGCAGGGTCTTTTCATCTGGGAAAGACATCCATAAAGA
AGCAATAAAGAAGAGTGCCACATTTATTTTATATCTATATGTACTTGTCAAAGAAGGTTTGTGTTTTTCTGCTT
TTGAAATCTGTATCTGTAGTGAGATAGCATTGTGAAGTACAGGCAGCCTGGACATAGAGAGGGAGAAGAAGTCA
GAGAGGGTGACAAGATAGAGAGCTATTTAATGGCCGGCTGGAAATGCTGGGCTGACGGTGCAGTCTGGGTGCTCG
CCCATTGTCCCACTATCTGGGTGCATGATCTTGAGCAAGTTCCTTCTGGTGTCTGCTTCTCCATTGTAAACCA
CAAGGCTGTTGCATGGGCTAATGAAGATCATATACGTGAAAATTATTTGAAAACATATAAAGCACTATACAGATT
CGAAACTCCATTGAGTCATTATCCTTGCTATGATGATGGTGTGTTTTGGGGATGAGAGGGTGCTATCCATTTCTCAT
GTTTTCCATTGTTTGAAACAAAGAAGGTTACCAAGAAGCCTTTCCTGTAGCCTTCTGTAGGAATTCTTTTGGGGA
AGTGAGGAAGCCAGGTCCACGGTCTGTTCTTGAAGCAGTAGCCTAACACACTCCAAGATATGGACACACGGGAGC
CGCTGGCAGAAGGGACTTCACGAAGTGTGTCATGGATGTTTTAGCCATTGTTGGCTTTCCTTATCAAAGTGGG
CCCTTCCCTTCTTGGTTTTCCAAAGGCATTTATTGCTGAGTTATATGTTCACTGTCCCCCTAATATTAGGGAGTAA
AACGGATACCAAGTTGATTTAGTGTTTTTACCTCTGTCTTGGCTTTCATGTTATTAAACGTATGCATGTGAAGAA
GGGTGTTTTTCTGTTTTATATTCAACTCATAAGACTTTGGGATAGGAAAAATGAGTAATGGTTACTAGGCTTAAT
ACCTGGGTGATTACATAATCTGTACAACGAACCCCATGATGTAAGTTTACCTATGTAACAAACCTGCACCTATA
CCCATGAAGTTAAAATGAAAGTTAAAAATAAAAAACATATACAAATAAAAAAA

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FIGURE 117

MSRGLQLLLLSCAYSLAPATPEVKVACSEDVDLPCTAPWDPQVPYTVSWVKLLEGGEERMETPQEDHLRGQHYHQ
KGQNGSFDAPNERPYSLKIRNTTSCNSGTyrCTLQDPDGQRNLsgkvILrvtGCPAQRKEETfKKYRAEIVLLLA
LVIFYLTLLIIFTCKFARLQSIFPDFSKAGMERAFLPVTSPNkHLGLVTPHKTELV

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FIGURE 118

ATGCTCCTCGATGTGGAGCCGCTGGAGCCTACACTTAGCAACATCATCGAGCAGCGCAGCCTGAAGTGGATCTTC
GTCGGGGGCAAGGGTGGTGTGGGCAAGACCACCTGCAGCTGCAGCCTGGCAGTCCAGCTCTCCAAGGGGCGTGAG
AGTGTTCGATCATCTCCACAGACCCAGCACACAACATCTCAGATGCTTTTGACCAGAAGTTCTCAAAGGTGCCT
ACCAAGGTCAAAGGCTATGACAACCTCTTTGCTATGGAGATTGACCCAGCCTGGGCGTGGCGGACGTGCCTGAC
GAGTTCTTCGAGGAGGACAACATGCTGAGCATGGGCAAGAAGATGATGCAGGAGGCCATGAGCGCATTTCCTGGC
ATCGATGAGGCCATGAGCTATGCCGAGGTCATGAGGCTGGTGAAGGGCATGAACTTCTCGGTGGTGGTATTTGAC
ACGGCACCCACGGGCCACACCCTGAGGCTGCTCAACTTCCCCACCATCGTGGAGCGGGGCTGGGCCGGCTTATG
CAGATCAAGAACCAGATCAGCCCTTTCATCTCACAGATGTGCAACATGCTGGGCCTGGGGGACATGAACGCAGAC
CAGCTGGCCTCCAAGCTGGAGGAGACGCTGCCCGTCATCCGCTCAGTCAGCGAACAGTTCAAGGACCCTGAGCAG
ACAACTTTCATCTGCGTATGCATTGCTGAGTTCTGTCCCTGTATGAGACAGAGAGGCTGATCCAGGAGCTGGCC
AAGTGCAAGATTGACACACACAATATAATTGTCAACCAGCTCGTCTTCCCCGACCCCGAGAAGCCCTGCAAGATG
TGTGAGGCCCGTCACAAGATCCAGGCCAAGTATCTGGACCAGATGGAGGACCTGTATGAAGACTTCCACATCGTG
AAGCTGCCGCTGTTACCCCATGAGGTGCGGGGGGCAGACAAGGTCAACACCTTCTCGGCCCTCCTCCTGGAGCCC
TACAAGCCCCCAGTGCCAGTAGCACAGCTGCCAGCCCCAACCGCTGCCATTTCACTCACCTCCACCTCC
CCACCCCTCGGGGCAGAGTTTGCACAAAGTCCCCCCCATAACAGGGGGAGCCACTTGGGCAGGAGGCAGGGA
GGGTCCATTCCCCCTGGTGGGGCTGGTGGGGAGCTGTAGTTGCCCCCTACCTCTCCACCTCTTGCTCTTCAAT
AAATGATCTTAACTG

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FIGURE 119

MLLDVEPLEPTLSNIEQSLKWIFVGGKGGVGKTTCSCLAVQLSKGRESVLIISTDPAHNISDAFDQKFSKVP
TKVKGYDNLFAMEIDPSLGADVDPDEFFEDNMLSMGKKMMQEAMSAFPGIDEAMSYAEVMRLVKGMNFSVVVFD
TAPTGHTLRLLNFPTIVERGLGRMQIKNQISPFISQMCNMLGLGDMNADQLASKLEETLPVIRSVSEQFKDPEQ
TTFICVCIAEFLSLYETERLIQELAKCKIDTHNIIVNQLVFPDPEKPCKMCEARHKIQAKYLDQMEDLYEDFHIV
KLPLLPEVRGADKVNTFSALLLEPYKPPSAQ

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FIGURE 120

AGTGCAGACGCGGCTCCTAGCGGATGGGTGCTATTGTGAGGCGGTTGTAGAAGAGTTTCGTGAGTGCTCGCAGCT
CATACTGTGGCTGTGTATCCGTGGCCACAGCTGGTTGGCGTCGCCCTTGAAATCCCAGGCCGTGAGGAGTTAGCG
AGCCCTGCTCACACTCGGCGCTCTGGTTTTCGGTGGGTGTGCCCTGCACCTGCCTCTTCCCCCATTCTCATTAAT
AAAGGTATCCATGGAGAACACTGAAAACCTCAGTGGATTCAAAATCCATTAAAAATTTGGAACCAAAGATCATACA
TGGAAGCGAATCAATGGACTCTGGAATATCCCTGGACAACAGTTATAAAATGGATTATCCTGAGATGGGTTTATG
TATAATAATTAATAATAAGAATTTTCATAAAAGCACTGGAATGACATCTCGGTCTGGTACAGATGTGATGCAGC
AAACCTCAGGGAACATTGAGAACTTGAAATATGAAGTCAGGAATAAAAAATGATCTTACACGTGAAGAAATTGT
GGAATTGATGCGTGATGTTTCTAAAGAAGATCACAGCAAAAGGAGCAGTTTGTGTTGTGTGCTTCTGAGCCATGG
TGAAGAAGGAATAATTTTGGAAACAAATGGACCTGTTGACCTGAAAAAAATAACAACTTTTTCAGAGGGGATCG
TTGTAGAAGTCTAACTGGAAAACCCAACTTTTCATTATTACAGGCCCTGCCGTGGTACAGAAGTGGACTGTGGCAT
TGAGACAGACAGTGGTGTTGATGATGACATGGCGTGTGATAAAATACCAGTGGAGGCCGACTTCTTGTATGCATA
CTCCACAGCACCTGGTTATTATTCTTGGCGAAATTCAAAGGATGGCTCCTGGTTCATCCAGTCGCTTTGTGCCAT
GCTGAAACAGTATGCCGACAAGCTTGAATTTATGCACATTCTTACCCGGGTAAACCGAAAGGTGGCAACAGAATT
TGAGTCCTTTTCTTTGACGCTACTTTTCATGCAAAGAAACAGATTCCATGTATTGTTTCCATGCTCACAAAAGA
ACTCTATTTTATCAGTAAAGAAATGGTTGGTTGGTGGTTTTTTTTAGTTTGTATGCCAAGTGAGAAGATGGTAT
ATTTGGTACTGTATTTCCCTCTCATTTTGACCTACTCTCATGCTGCAGAGGGTACTTTAAGACATACTCCTTCCA
TCAAAATAGAACCACTATGAAGCTACCTCAAACCTCCAGTCAGGTAGTTGCAATTGAATTAATTAAGGAATAAATA
AAAATGGATACTGGTGCAGTCATTATGAGAGGCAATGATTGTTAATTTACAGCTTTCATGATTAGCAAGTTACAG
TGATGCTGTGCTATGAATTTTCAAGTAATTGTGAAAAAGTTAAACATTGAAGTAATGAATTTTATGATATTCCC
CCCACTTAAGACTGTGTATTCTAGTTTTGTCAAACCTGTAGAAATGATGATGTGGAAGAACTTAGGCATCTGTGGG
CATGGTCAAAGGCTCAAACCTTTATTTTAGAATTGATATACACGGATGACTTAAGTGCATTTTAGACCATTTATC
TGGGATTATGGTTTTGTGATGTTTGTCTGAACACTTTTGTGTAAAAAAATAATAATAATGTTTAAATATTG
AGAAAGAACTAATATTTTATGTGAGAGAAAGTGTGAGCAAACTAAGTGAATTTAAGGCTAAACTTAAACATT
CATAGAGGGGTGGAGTTTTAAGTGAAGGTGCTACAATGCCCTGGATCTACCAGCATAAATATCTTCTGATTTG
TCCCTATGCATATCAGTTGAGCTTCATATACCAGCAATATATCTGAAGAGCTATTATATAAAAACCCCAAACCTGT
TGATTATTAGCCAGGTAATGTGAATAAATTTCTATAGGAACATATGAAATACAACCTAAATAATAAACAGTGGAA
TATAAGGAAAGCAATAAATGAATGGGCTGAGCTGCCTGTAACCTGAGAGTAGATGGTTTTGAGCCTGAGCAGAGAC
ATGACTCAGCCTGTTCCATGAAGGCAGAGCCATGGACCACGCAGGAAGGGCCTACAGCCATTTCTCCATACGCA
CTGGTATGTGTGGATGATGCTGCCAGGGCGCCATCGCCAAGTAAGAAAGTGAAGCAAATCAGAACTTGTGAAGT
GGAAATGTTCTAAAGGTGGTGAGGCAATAAAAATCATAGTACTCTTTGTAGCAAAATTCTTAAGTATGTTATTTT
CTGTTGAAGTTTACAATCAAAGGAAAATAGTAATGTTTATACTGTTTACTGAAAGAAAAAGACCTATGAGCACA
TAGGACTCTAGACGGCATCCAGCCGGAGGCCAGAGCTGAGCACTCAGCCCGGAGGCAGGCTCCAGGCCCTCAGCA
GGTGCGGAGCCGTCAGTGCACCAAGTCTCACTGGCTGTCAGTATGACATTTACGGGAGATTCTTGTGTTGCTCAA
AAAATGAGCTCGCATTTGTCAATGACAGTTTCTTTTCTTACTAGACCTGTAACCTTTGTAAATACACACAGCA
TGTAATGGTATCTTAAAGTGTGTTTCTATGTGACAATTTGTACAAATTTGTTATTTTCCATTTTATTTCAAAA
TATACATTCAAACCTTAAAT

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FIGURE 121

MENTENSVDSKSIKNLEPKIIHGSESMDSGISLDNSYKMDYPEMGLCIIINNKNFHKSTGMTSRSGTDVDAANLR
ETFRNLKYEVRNKNDLTREEIVELMRDVSKEDHSKRSSFVCVLLSHGEEGIIFGTNGPVDLKKITNFFRGDRCRS
LTGKPKLFIIQACRGTELDGCIETDSGVDDDMACHKIPVEADFLYAYSTAPGYYSWRNSKDGSWFIQSLCAMLKQ
YADKLEFMHILTRVNRKVATEFESFSFDATEFHAKKQIPCIVSMLTKELYFYH

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FIGURE 122A

GGGCCAGTCGGCGCCGCGCGGAGCTGGCCGCTGGATTGGCTGCAACACTCGCGTGTGAGGCGGTTGCTAGGCTCC
GGCCGCGCGCCCCGCCCTTGGCTCAGCGCCCTCTACCGCCCGGTACGTGCTCGCGCGAAGGCTGCGGCGCGGC
GCTCGCGCCTCTTAGGCTTGGCGGTGGCGGCGGCGGAGCTTCGCGCCGAATCCCCGGGGAGCGGCGGTGGCGGC
GTCTGGGGCCAGGAGGAGCGAACACCTGCCGCGGTCTCCCGCCGGCGCTGGGCTCTGTGTGCTCCGGGATGGA
GCAGGTGTGAGAGGGTGAGAACCAGCTCTGGGACCAAGTCACTTGCTTCTTACTTAGCAAGACTATCGACTT
GAGCAAACCTTGGACCTGGGATGAGGATGCTGTGGGCTCTCGCTGCTGCTGCCCTCTGGGGGAGGACCTTTCT
CCTCTGCTCTCTGTGGTTATGGCTCAGTCCCACTGGCCAGTGAACCCTCAGAGGCTGTCAGGGACTGGGAAAA
CCAGCTTGAGGCATCCATGCACTCAGTGCTCTCAGACCTCCACGAGGCTGTTCACAGTGTTGGCATTCTGA
TGGCACGGCTGTCTGTCGGGCGCTCATTTCGAGTGACCATTCACAGATTGATTGCCCTCAGTGGAGATATCAT
CAAGGTATCAGCGGCAGGGAAGGAGGCTTTGCCATCTTGGCTGCACTGGGACTCACAGAGCCACACCCTGGAGGG
CCTCCCCCTTGACACTGATAAGGGTGTGCAATTACATTTAGTGAGCGCTACACGGCTGGGGGCCAACGGGAGCCA
CATCCCCAGACCTCCAGTGTGTTCTCCATCGAGGTCTACCCTGAAGACCACAGTGATCTGCAGTCGGTGAGGAC
AGCCTCCCCAGACCCTGGTGAGGTGGTATCATCTGCCTGTGCTGCGGATGAACCTGTGACTGTTTTGACGGTGAT
TTTGGATGCCGACCTACCAAGATGACCCCAAAGCAAAGGATTGACCTCCTGCACAGGATGCGGAGCTTCTCAGA
AGTAGAGCTTACAACATGAAATTAGTGCCGGTGGTGAATAACAGACTATTGACATGTCGGCCTTCATGGCTGG
CCCGGGAAATCCAAAAAGGTGGTGGAGAATGGGGCCCTTCTCTCCTGGAAGCTGGGCTGCTCCCTGAACCAGAA
CAGTGTCCTGACATTATGGTGTAGAGGCCCTGCCAGGGAGGGCGCAATGTCTGCTCAGCTTGGCTACCCTGT
GGTGGGTGGCACATCGCCAATAAGAAGCCCCCTCTTCCCAAACGCGTCCGGAGGCAGATCCATGCTACACCCAC
ACCTGTCACTGCCATTGGGGCCCCAACACGGCTATCCAGGAGCCCCCATCCAGGATCGTGCCAACCCCCACATC
TCCAGCCATTGCTCCTCCAACAGAGACCATGGCTCCTCCAGTCAGGGATCCTGTTCTGGGAAACCCACGGTCAC
CATCCGGACTCGAGGCGCCATTATTCAAACCCCAACCTAGGCCCATCCAGCCTACTCGGGTGTGAGAAGCTGG
CACCACAGTTCTTGCCAGATTGCCCCAACGATGACCATTCCTGGCTATGTGGAGCCTACTGCAGTTGCTACCCC
TCCACAACCACCACCAAGAAGCCACGAGTATCCACACCAAAACAGCAACGCCTTCAACTGACTCCACCACCAC
CAGACTCGCAGGCCAACCAAGAAACCACGGACACCCCGGCCAGTGCCCCGGGTACCACCAAAAGTTTCCATCAC
CAGATTGGAAACTGCCCTACCGCCTACTCGTATTTCGCAACCACCACAGTGGAGTGCCCCGTGGCGGAGAACCCAA
CCAGCGCCCAGAGCTCAAGAACCATATTGACAGGGTAGATGCCTGGGTTGGCACCTACTTTGAGGTGAAGATCCC
GTCAGACACTTTCTATGACCATGAGGACACCACCACTGACAAGCTGAAGCTGACCTGAAACTGCGGGAGCAGCA
GCTGGTGGGCGAGAAGTCTGGGTACAGTTCAACAGCAACAGCCAGCTCATGTATGGCCTTCCCGACAGCAGCCA
CGTGGGCAAAACACGAGTATTTATGATGCCACAGACAAGGGGGGCTGTGCGCTGTGGATGCTTTCGAGATCCA
CGTCCACAGGCGCCCCAAGGGGATAGGGCTCCTGCAAGGTTCAAGGCCAAGTTTGTGGGTGACCCGGCACTGGT
GTTGAATGACATCCACAAGAAGATTGCCTTGGTAAAGAACTGGCCTTCGCCCTTGGAGACCAGAACTGTAGCAC
CATCACCTTGCAAGATATCACCGGGGCTCCATCGTGGTGAATGGACCAACAACACACTGCCCTTGGAGCCCTG
CCCCAAGGAGCAGATCGCTGGGCTGAGCCGCCGATCGCTGAGGATGATGGAAAACCTCGGCCTGCCTTCTCCAA
CGCCCTAGAGCCTGACTTTAAGGCCACAAGCATCACTGTGACGGCTCTGGCAGTTGTGCGCACCTACAGTTTAT
CCCTGTGGTACCACCCAGGAGAGTGCCCTCAGAGGCGCCGCCACAGAAGTGCTGACAGGGACCCTGAGAAGAG
CAGTGAGGATGATGTCTACCTGCACACAGTCATTCCGGCCGTGGTGGTGCAGCCATCCTGCTCATTGCTGGCAT
CATTGCCATGATCTGCTACCGCAAGAAGCGGAAGGGCAAGCTTACCCTTGAGGACCAGGCCACCTTCATCAAGAA
GGGGGTGCCTATCATCTTTGCAGACGAACTGGACGACTCCAAGCCCCCACCCTCCTCCAGCATGCCACTCATTCT
GCAGGAGGAGAAGGCTCCCCTACCCCTCCTGAGTACCCCAACCAGAGTGTGCCCCGAGACCCTCCTCTGAACCA
GGACACCATGGGAGAGTACACGCCCTGCGGGATGAGGATCCCAATGCGCCTCCCTACCAGCCCCCACCGCCCTT
CACAGTACCATGGAGGGCAAGGGCTCCCGTCCCAAGAACATGACCCCATACCGGTACCTCCTCCTATGTCCC
ACCTTAAACCCGCAAGCGCTGGGTGGAGGACGGGTAGGGCAGGGCCCTGGAGACGACATGGTGTGTCTGTGGAG
ACCGGTGGCCTGCAGACCATTGCCACCGGGAGCCGACACCTGACCTAGCACACACTGACACAGGGGCTGGACA
AGCCCGCCCTCTCTGGTCTCCCAAACCCCAAAGCAGCTGGAGAGACTTTGGGGACTTTTTTATTTTTATTTTTT
GCCTAACAGCTTTTGGTTTGTTCATAGAGAAGTCTTCGCTTCATTTTTGATGGCTGGCTCTGAAAGCACCATGTG
GAGTGGAGGTGGAGGGACCGAGGAACCATGAATGAAGTTCGAGGCAGTGCCGGGCGGCCCCCTGGCTCTCTGCGT
TTTGCCCTTAAACACTAACTGTACTGTTTTTCTATTACAGTGTGTCTAGCTGCAGGATGTAACATGGAAAACAGT
AACTAAAGATTAAATTCAAAGGACTTTCAGAAGTTAAGGTTAAGTTTTTACGTTTAATCTGCTGTTTACCTAAAC

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FIGURE 122B

TTGTATGTATAATTTTTGGGTGGGTATGGGGAATTGCTTTGCTAAAAATAAGCTCCCAGGGTGTTCAAACTTAG
AGAAGACCAAGGGACAGTATTTTTATCAAAGGAATACTATTTTTTCACACTACGTCAACTTGGTTGCTCTGATA
CCCCAGAGCCTGATTGGGGGGCCTCCCGGCCCTGGCTCACGCCAAGTCCCTGGTGCTGGGTTTGCTCTCCCGCTGT
TGCCAGGGGCTGGAAGCTGGAGGGGTCTCTTGGGCCATGGACATCCCCACTTCCAGCCCATGTACACTAGTGGCC
CACGACCAAGGGGTCTTCATTTCCATGAAAAAGGGACTCCAAGAGGCAGTGGTGGCTGTGGCCCCAACCTTTGGT
GCTCCAGGGTGGGCCAAGTGTGTGGGGGCACCTGGGAGGTCAAAGGTCTCCACCACATCAACCTATTTTGTTT
TACCCTTTTTCTGTGCATTGTTTTTTTTTTTTCTCTCTAAAAGGAATATCACGGTTTTTTTGAACACTCAGTGGGG
GACATTTTGGTGAAGATGCAATATTTTATGTCATGTGATGCTCTTCTCTCACTTGACCTTGGCCGCTTTGTCT
AACAGTCCACAGTCTGCCCCGACCCACCCCATCCCTTTCTCTGGCACTCCAGTCCAGCTTGGGCCCTGAACTAC
TGGAAAAGGTCTGGCGGCTGGGGAGGAGTGCCAGCAATAGTTCATAATAAAAAATCTGTTAGCTCTCAAAGCTAAT
TTTTTACTAAAGTTTTTATACAGCCTCAAATTGTTTTATTAAAAAAAAGATTTAAATGGTGATGCTTACAGCAG
TTTGTACGAGCTCTTAAGTGTGATTCCATGGAAC TGACGGCTTTGCTTGTTTTGATTCTTTTCCCCCTACTTTT
CCTAATGGTTTTAAATTCGGAATTACACTGGGGTTCTTTTGCCTTTTTTAGCAGAACATCCGTCCGTCCATCTGC
ATCTCTGTCCCATGACTCAGGGGCGCCCACTCTGCTTCGATTCTCTCTCTGTGGAAGAAACCATTTTGAGCATGA
CTTTTCTTGATGCTGAAGCGTTATTTTGGGTACTTTTTAGGGAGGAATGCCTTTCGCAATAATGTATCCATTCC
CCTGATTGAGGGTGGGTGGGTGGACCCAGGCTCCCTTTGCACACAGAGCAGCTACTTCTAAGCCATATCGACTGT
TTTGCAGAGGATTTGTGTCTCTCCCTCAGGAGGGGAGGCCTGGTAGGAGGGGGGAGAGTTCTCTGTCTCTACTG
CTCTCAAGAGGGCATTTCCTTTCGCGCTTCTCCACAGGGGCCAGCCCCCTCTCCCTGCCCAAGTCCCCAGGGG
GTACTCTGGAGTGAGCAGTCCCCCTGTGGGGGAGCCTGTAAATGCGGGCTCAGTGGACCACTGGTGACTGGGCTC
ATGCCCTCCAAGTCAGAGTTTCCCCCTGGTGCCCCAGAGACAGGAGCACAAAGTGGGATCTGACCTGGTGAGATTATT
TCTGATGACCTCATAAAAATAAACAATTCCCAATGTTCCAGGTGAGGGCTTTGAAAGGCCTTCCAAACAGCTC
CGTCGCCCCCTAGCAACTCCACCATTGGGCACTGCCATGCAGAGACGTGGCTGGCCAGAAATGGCCTGTTGCCATA
GCAACTGGAGGCGATGGGGCAGTGAACAGAATAACAACAGCAACAATGCCCTTTGCAGGCAGCCTGCTCCCCCTGAG
CGCTGGGCTGGTGATGGCCGTTGGACTCTGTGAGATGGAGAGCCAATCTCACATTCAAGTGTTCACCAACCACTG
ATGTGTTTTTATTTCTTCTATATGATTTTAAAGATGTGTTTTCTGCATTCTGTAAAGAAACATATCAAACATAAT
AAAAGCAGTGTCTTTATT

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FIGURE 123

MRMSVGLSLLLPLWGRTFLLLLSVMAQSHWPSEPSEAVRDWENQLEASMHSVLSDLHEAVPTVVGIPDGTAVVG
RSFRVTIPTDLIASSGDI IKVSAAGKEALPSWLHWDSQSHTLEGLPLD TDKG VHYISVSATRLGANGSHIPQTSS
VFSIEVYPEDHSDLQSVRTASPD PGEVSSACAADEPVT VLT VILDADLT KMT PKQRIDLLHRMRSFSEVELHNM
KLPVVNNRFLDMSAFMAGPGNPKKVVENGALLSWKLGCSLNQNSVPD IHGVEAPAREGAMSAQLGYPVVGWHIA
NKKPPLPKRVRRQIHATPTPVTAIGPPTTAIQEPPSRIVPTPTSPAIA PPTETMAPPVRDPVPGKPTVTIRTRGA
IIQTPTLGPIQPTRVSEAGTTVPGQIRPTMTIPGYVEPTAVATPPTTTT KPRVSTPKPATPSTDSTTTTTRRPT
KKPRTPRPVPRVTTKVSITRLETASPPTRIRTTTSGVPRGGEPNQRPELKNHIDRVDAWVGTYFEVKIPSDTFYD
HEDTTTDLKLTLLKREQQLVGEKSWVQFNSNSQLMYGLPDSSHVGKHEYFMHATDKGGLSAVDAFEIHVHRRPQ
GDRAPARFKAKFVGDPALVLNDIHKKIALVKKLAF AFGDRNCSTITLQ NITRGSIVVEWTNNTLPLEPCPKEQIA
GLSRRIAEDDGKPRPAFSALEPDFKATSITVTGSGSCRHLQFIPVVP RRVVPSEAPPT EVPD RDPEKSS EDDVY
LHTVIPAVVVAAILLIAGIIAMICYRKKRKGLTLEDQATFIKKGVP IIFADELDDSKPPPSSS MPLILQEEKAP
LPPPEYPNQSVPETTFLNQDTMGEYTPLRDEDPNAPPYQPPPPFTVPMEGKGSRPKNMTPYRSPPPYVPP

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FIGURE 124A

GATCAATACTGAGGCCGCGTTCGACCCCCTTGAGCCGAGACCCCCCCCCAGCCAGCCCCACCCACCCCCCGCA
CACGCCCCACCCCCCCCCACGACCCAGCCTCATACCGCACCAGCTGAGGCACCCAAGAGGATTACCCCTGGGGCC
CTCTCCCGCCCCCAAAAAGAGAAGATCCCCCTCTCTGGCCCATCCCTTCCCTTCTTCCCTCCCCCTCCCCC
GAACTTTCCCTCTCGCATGCTTTTCCCTGCACCACGGATCGCTCTCGGATGCCGCTTGCTGGAAGCTGCGTT
AGGAGCGAGCGGCGGCGGTGGCGGCGGTGGCGGCGGCGGCGGAGCTCGGGAGTGCTATGACCGGCAAACTCGCC
GAGAAGCTGCCGCTGACCATGAGCAGTTTGCTAAACCAACTGCCTGACAATCTGTACCCCGAGGAGATCCCCAGC
GCGCTCAACCTCTTCTCCGGCAGCAGCGACTCGGTAGTCCATTACAATCAGATGGCTACAGAGAATGTAATGGAC
ATCGGTCTGACCAACGAGAAGCCCAACCCGGAACCTCTTTACTCCGGCTCCTTCCAGCCAGCCCCCGGAACAAG
ACCGTGACCTACTTGGGAAAGTTCGCTTCGACTCCCTTCCAACCTGGTGCCAGGACAACATCATTAGCCTCATG
AGCGCCGGCATCTTGGGGGTGCCCGCGCTTACAGGGGCGCTAAGCACGAGACGTCCACGGCCAGCATGGTGACG
CCACCGCAGGGTGACGTGGAGGCCATGTATCCGCGCTACCCCTTACTCCAACCTGCGGCGACCTTACTCAGAG
CCCGTGCTTTCCACGACCCCCAGGGCAATCCCGGGCTCGCTATTCCCCCAGGATTACCAATCGGCCAAGCCG
GCGTTGGACAGCAATCTCTTCCCATGATTCTGACTACAACCTCTACCACCACCCCAACGACATGGGCTCCATT
CCGGAGCACAAGCCCTTCCAGGGCATGGACCCCATCCGGGTCAACCCGCCCCCTACTACCCCTCTGGAGACCATC
AAGGCATTCAAAGACAAGCAGATCCACCCGGGCTTGGCAGCCTGCCCGAGCCGCGCTCACCCCTCAAGCCCATC
CGGCCCCGCAAGTACCCCAACCGGCTTAGCAAGACACCGCTCCACGAACGGCCCCACGCGTGCCCGCCGAGGGC
TGCGACCGCCGTTTACGCCGTTTCGGACGAGCTGACCCGGCACCTGCGCATCCACACGGGCCACAAGCCCTTCCAG
TGCCGGATCTGCATGCGGAGCTTCAGCCGACGACACCTCACCCTCACATCCGCACTCATACGGGCGAGAAG
CCCTTTGCTGCGAGTTCTGCGGGCGCAAGTTTGC GCGCAGCGACGAGCGCAAGCGCCACGCCAAGATCCACCTC
AAGCAAAAGGAGAAGAAGGCGGAGAAGGGCGGTGCACCTCTGCATCCTCGGCGCCCCCGTGTGCTGCGCCCCC
GTGGTCAACACCTGCGCCTGAGGATCGGGCCCCCAGATCCCCACTTTTCCCTTCCAGTGCCCTCCCGGCTGCTAGC
CTGAAAGCAGCGGGAAAGCCAGCCACGGAGGCGTAGGGGCGCGCCCTGGCTCTCCATGGACGTGCGGCCCTT
GCTTCCCTTTCGATGCCCCCGGTTCCCAACCTTTCACGCCGCCAGCGGTGAGGGGCCAGGGCTGGAGGCGCCTT
CCCCTCGCGGTCCCCCACTTAGCCAAGGCGTGGGGGCGGAAAGGTGGCGTCTAGCCCGCTTGTTCAGTTCCGAT
CGCCTTGATCCAGGGGCCGCCGGGCGCGCCAAGGACCTGCAAGGGACTGAAGGCGGAGCCCATCCAACCTCGC
CCGACCCAAACACCTCATTTGTTTCCCCACGTCTCCTCTATACCCCTCGAAGACTCGAGAGGGGGAGGGGGTA
AGGAGCGCACCAAAGCGCAGAGCTTGCTGCCCGCCGCACGCACGCGCGCTGCGTGCGGGGATGCGCGCGAGTGT
GTGCGTGCTCGCGT
ACTCTTGAGCTGAACTGGGCTGTGTTTACCCCAAACCTCTTCCCCACCTCGGGTCCCCAAGCCGCTGGGAGATGTC
CCATGCTGGGGGTCCGCACGTGGCTGGAGGAGGTGGTCTTCCATCCGCTCTGAAATCATGTTTCTTAGAGAAATG
CCTCGGATGCCCGCGACGCGGTGCTGCTGCCGCCGCTTCGGGTTTGGCCCCCTCAGAACCCCTCCTTTTCTGAGCG
CTTCCCTCTTAGGCCTCAGGGCAGTTTGATCTGTGGGGAGAAAGAGCAGCCATCGCTGAGCCTGCCTTTTAAAT
ATATGTGTATTTCTTAGCCCACTCTAAGAAATCTATGTTCTGAGTTTGCCCCCTGCCCTCCCACTCCTTCCC
CTTTTCCCTCTAAACCTTCTCCCATCTCTTTCAAATCTTTTCCCAGAAAGGCAGGCTTCAACCAGCCACTCCA
GCTTTGTGTCTTCTCTCAATTACATAGCAATTTCTCCTTCCCACCATCATGGGGAAGCTGGCTCTGCTTTTGCC
TTTGTATCACCAACACAACAGATAGAATTTAAATATAAGTATATGGTGTGCGTGTGTATGTATGTGTATGTATA
TGCATGCATGTGTATAAAGATGCACATGCGTACATATACATAACATACACACAATATGTATTCTAGCAAAATAA
AATCTCTAAGGTACTTGGTTATCCAGTGCAGTGCACCGGAATAAAGAGAATTTGTAGGCGTATACAGCTTTAAAT
GATTTATTTTTTATGAAAATGTTAACTGATGAGATTATATCTACATACGTGTGTTATGTGTGTGGATATAGATGC
ACACATATCTGTACATATACATGTGAGTGTACATATATACACATATACACATCTATGTATGGATATGTGTGTATA
CACATATACACATCTCTGTCCAAAATTTCTCAAAGATATGGGGATTTTTTCATGAATCCATGTGGATGAATGAG
GTGTCTCCTTTCCATACCCAGTCTCACCTTCTCCCCACCCTACCTCACCTCTTCTCAGGCACCCCTCTTCCCCAG
CTGTCTGCCAGCCCTTCTCGTACAGGGTGGCTCCTTTGAAGTGAGTAATAGGGAAGGTGCTCTCTGCCACAG
CTTGACGATGGTCTTGAAGTGAATGTACTGTTCTGTAGCGTTACTTCTCCTGTGGTCAGTAAGTTGCCAGAG
AGAAGGAACAAAGGTCTGGAGTTTACAGAATGTCTGTTTTTAAAGTCACCTTATGCGTTTTTCACTTTTTTCTTT
TTTAAAGAAAAGAAGTACCATTTTTGTTTTGTTTTGTTTTGATTTTTGGTGGTGGATAAATAATACTAAAGGAC
TCTAGTGGAAGGGGGGATATCGAAGAGCAGGGGGTTGTGAATTTCCAGGTACTTGGACTTTTTGTAGAAGTAGA
GAGAAGAAGATGAAGTTTGCCAGGAGGGCCCATATTTTTTCAGCTGAAGGGTAAAATCTTTCTTTCAGAGACAG

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FIGURE 124B

TATTTTGCTGAATACTTTTTATAATGTGATGATTATTAAGCAAAAATTTTGGTCACTTCCAAGCTAGAAGG
AGGAATCAGATACCCTTTAATATTTTTCTCGCTCCTTCTGGTATATGCATGTCCTGCTGATAATTGAGTTT
TCCTTTGTTTTAATAAACTGTTCTCAGACATTAAGCTAACTAAGAGAAAAATACTTTGTTGCCAAAAGGTTG
TGCTATCCAGATTTTTTATATGTCTGCATGTTTAAAAAAAAAAAAAGCAACAAAAGAAAATGCACTCTAACTTATG
TGAAGTGAAGAGAAAAAATCAGGTTTTAAACAGGAAAACCTATGGGGAATGATATTTTTTGAAAGACTTTTGTAT
AAAGTTGAGTACTTAGAAAAAGACAAACCAGATGTAATATATTTTGTGGATGTTTTATTTCTTGGATTTATAG
TACCTTATACTAAGGTTAAAAAATATGCTTGATAATTGTGAAAAGGTGAAATTCCTCACCACATTTTCAATTTGCT
CCTTTGTCATATTGTAATGCCAATATAATATAGTTAATGAAAACAGCATTTTTAAAAACCGAAATATTGAAATGG
TGTAATGTTGTACCATTTGCACTGTGAGCAAATGCTAATACAGTAAATATATTGTGTTTGCTGACAATCAAAAAA
AAAAAAAAAAAAAA

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FIGURE 125

MTGKLAEKLPVTMSGLLNQLPDNLYPEEIPSA LNLFSGSSDSVVHYNQMATENVMDIGLTNEKPNPELSYSGSFQ
PAPGNKTVTYLGKFAFDSPSNWCQDNII SLMSAGILGVPPASGALSTQTSTASMVQPPQGDVEAMYPALPPYSNC
GDLYSEPVSEFHD PQGNPGLAYSPQDYQSAKPALDSNLFPMIPDYNLYHHPNDMGSIPEHKPFQGMDFIRVNPFFT
TPLETIKAFKDKQIHPGFGSLPQPPLTLKPIRPRKYPNRPSKTPLHERPHACPAEGCDRRFSRSDLTRHLRIHT
GHKPFQCRICMRSFSRSDHLTTHIRHTGKPFACEFCGRKFARSDEKRRHAKIHLKQKEKKAEGGAPSASSAP
PVSLAPVVTCA

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FIGURE 126

GGAATTCCAATGAATGAATGAATGAATGAGTGAATGAATCAACGAAGGAGTGAGTCAAGGCCCGGGAACACAGA
CTCCAAGCCTACGCAGAGCCCGGAAGGGGGATTCCGGAGGGGCGGGGCTCTTTCCGGAAGCGCCCGCGGGG
CGGGGAGGGGGCGGGGCCATCCGCGTGAGGCGACCCTGTTGGTCCGGAGGGGCGGGGCGAGGAGGAGACGGCCT
TGGGCGGTTCGGCTGCCACAGTAACCGCTGGGTGGACCTGGCCAGCGCTCCGAACCTTGTCCTCGCTGCGCGCC
GGCCCCCTCGGAGCCCCACAGCCCGGAAGGAGGCGGCCGCGGGCGGGGCGCCGCTCTGCCAAGCGGACCCGCAA
CCCGGAAAGGCGGCGCGGCGAGCCTGGAGCCGGA TCCTGCTCAGACCGGGCCCCGGCCGGCCAGAGCCGCGGGC
ATGTCGGAGGCGCGGAAGGGGCCGACGAGGCGGAGGAGAGCCAGTACGACTCTGGCATTGAGTCTCTGCGCTCT
CTGCGCTCCCTACCCGAGTCCACCTCGGCTCCAGCCTCCGGGCCCTCGGACGGCAGCCCCCAGCCCTGCACCCAT
CCTCCGGGACCCGTCAAGGAACCACAGGAGAAGGAAGACGCGGATGGGGAGCGGGCTGATTCCACCTATGGCTCC
TCCTCGCTCACCTACACCTGTCTTGCTGGGGGGCCCCGAGGCTGAGGACCCGCCCCCAGCCTGCCACTCCCC
CACGTGGGGGCGCTGAGCCCTCAGCAGCTGGAAGCACTCACTTACATCTCCGAGGACGGAGACAGCTGGTCCAC
CTGGCAGTGATTATGAGGCCCCAGCGGTGCTGCTCTGTTGCCTGGCTTTGCTGCCCCAGGAGGTCTGGACATT
CAAAATAACCTTTACCAGACAGCACTCCATCTGGCTGTACATCTGGACCAACCGGGCGCAGTTCGGGCACTGGTG
CTGAAGGGGGCCAGCCGGGCACTACAGGACCGGATGGAGACACAGCCCTTCATGTGGCCTGCCAGCGCCAGTCT
TGGCCTGTGCCCCTGCTGCTGGAAGGGCGGGCCAGAGCCAGGCAGAGGAACATCTCACTCTCTGGACCTCCAG
CTGCAAAACTGGCAAGGTCTGGCTTGCTCCACATTGCCACCCCTTCAGAAGAACCAACCACTCATGGAATTGCTG
CTTCGGAATGGAGCTGACATTGATGTGCAGGAGGGCTCCAGTGGTAAGACAGCGCTGCACCTGGCTGTGGAAACC
CAAGAGCGGGGCTTGGTACAGTTCCTGCTCCAGGCTGGTGCCAGGTAGATGCCCGCATGCTGAACGGGTGCACA
CCCCTGCACCTGGCAGCTGGCCGGGTCTCATGGGCATCTCATCCACTCTGTGCAAGGCGGGTGTGACTCCCTG
CTGCGGAATGTGGAGGATGAGACGCCCCAGGACCTGACTGAGGAATCCCTTGTCCTTTTGCCCTTTGATGACCTG
AAGATCTCAGGGAAACTGCTGCTGTGTACCGAC TGAAGCCAGGCAGGGTCTGGGATCCTCAGGGCTCCACCTCTC
CATCTGGAAGCCGGAGCCATAACTGCTGCAGTTTGGGCCAGGCTATGTGCTCTTCTGGTGGCCTAGGGACTGCT
GTGGCCAGAGCCTGGGGCCAGCCAGTACAGTCTGAGCCGAGGAGGAGGGACTGCAAGTGAAGAGAGCCAGTCT
GGAAGGAAGAGCTTTCCAGGTGGACAGGGCTTCTTGGAAGACCCCCAAAGCCCCAGGTATCCTGGGTGAAGCCTG
TTTGCCTCTCTTGAAAATGGCAGGTGCTCTTGT TTTACCCATGTTGGGTGAGCCTGAAACTGCCAACCAGTAGGA
AGCATGGACTCTCCTGAGTGAGAAGAGACTGAAATAGGAGCAAGCAGAACCCTGAGAGGTGTCCATCTTCTTGCT
GTTGAGGACCCTGAAACACCGTTGTTTAAAGACTTCACACAGAAGGCTCTGAACTGAGCCACTGGGGAAGGGAAG
TTTCAGTAACATGACACTAAAATGGCAGAGACGTTAAAAAAA

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FIGURE 127

MNQRRSESRPGNHRLQAYAEPGKGDSGGAGPLSGSARRGRGGGGAIRVRRPCWSSGAGRGGGRPWAVRLPTVTAG
WTWPALRTLSSLRAGPSEPHSPGRRRPRAGRPLCQADPQPGKAARRSLEPDPAQTGPRPARAAGMSEARKGPDEA
EESQYDSGIESLRSLRSLPESTSAPASGPSDGSPPCTHPPGPVKEPQEKEDADGERADSTYGSSSLTYTSLLG
GPEAEDPPRRLPLPHVGALSPQQLEALTYISEDGDTLVHLAVIHEAPAVLLCCLALLPQEVLDIQNNLYQTALHL
AVHLDQPGAVRALVLKGASRALQDRHGDTALHVACQRQSWPVPAACWKGGPEPGRGTSHSLDLQLQNWQGLACLH
IATLQKNQPLMELLRRNGADIDVQEGSSGKTALHLAVETQERGLVQFLLQAGAQVDARMLNGCTPLHLAAGRGLM
GISSTLCKAGADSLRNVEDETPQDLTEESLVLLPFDDLKISGKLLLCD

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FIGURE 128A

GAATTCGGCACGAGACGGTTTCCTCCAGAGGTCTCGCCCCCTCTGCCCTATATTCCCAGAGCTCGAGTCTGATC
CGGGCCTTGCCGGGCACCCTGGAAAGGCGGGGGTGATAGTACAGATGGAGACGCAACTGCAGAGCATTTCGAAG
AGGTGGTGAAAAACGGAAGTTATAGAAGAGGCTTTTCTGGCATGTTTATGGATACTCCTGAAGATGAGAAAACAA
AACTAATTAGCTGTTTGGGGGCCTTCAGACAGTTTGGGGTGGTCTTTCTCAGGAGTCTCATGAACAGTGTATCC
AGTGGATTGTTAAGTTTATTCATGGTCAGCATAGTCTTAAAGAATTTCTTTCTTTATGACTGCTTAGCAATGG
CAGTTGAGACTGGTCTCCTTCCACCCAGGCTGGTTTGTGAATCCCTGATAAACTCTGACACTCTTGAGTGGGAAA
GAACACAGCTTTGGGCCTTAACATTTAACTGGTTTGGGAAATAATTGGGGGAGTGGATAACAAGGGTGTTCGAG
ATCTCTTAAAGTGATTTTGGAGAAGATTTTGACAATTCCTAATACAGTGAGCTCTGCTGTTGTACAGCAGCTTC
TGGCAGCAAGAGAGGTTATAGCATATATCTTGGAAAGAAATGCCTGCTTATTACCAGCCTATTTTGCAGTCACTG
AGATCAGGAACTGTATCCTGAAGGCAAACCTTCCACTGCTTACTTGGAAACCTAGTATCAGACTTTGTGGATA
CCTTCAGGCCACAGCAAGGATAAACTCCATTTGTGGTCGCTGTAGTCTTCTGCCAGTTGTAAATAATTCCGGGTG
CCATTTGTAATTCATGGAACTGGATCCTGCTACTCTTCGTTTTCTTTGAAAGGCCTTTTGCCATATGATAAGG
ATCTGTTTGAACCACAGACTGCTTTGTTGAGATATGATTGGAGCAGCCTTATTCCAGGGATATGGTCTGCAATA
TGCTAGGTTTAAATAAGCAGCACAAGCAGCGCTGCCCTGTGCTGGAGGACCAGTTGGTGGATCTGGTTGTTTATG
CCATGGAGCGATCTGAGACCGAGGAGAAGTTTGACGATGGGGGAACAAGCCAACCTCCTGTGGCAGCATCTCTCAA
GTCAGCTCATTTTCTTGTGCTTTTCCAGTTTGAAGTTTTCACATATGGTGTCTTCTCTTCATCAGAAGTTAG
CAGGGCGAGGACTGATTAAAGGCAGAGATCATCTTATGTGGGTTCTCCTGCAATTCATTTCTGGAAGTATTCAGA
AAAATGCACTAGCTGATTTTCTCCCTGTGATGAAGCTCTTCGACTTGCTATACCCAGAAAAAGAATATATCCAG
TTCTGTATATTAACAAACCCAGTCAACCCATGCCCTTGAATGACCTGTATTTGGATTTCATCTCAATAGAAAAG
CTCAAAATGACAACCTCCAAGCTACAGATTCCAATACCTCATTCCCTAAGACTTCACCATGAGTTCCTGCAGCAGA
GTCTAAGAAATAAAAGTTTACAGATGAATGACTATAAGATTGCTCTATTGTGTAATGCATACTCTACAAATTCAG
AATGTTTTACATTACCCATGGGAGCTCTGGTAGAACTATTTATGGAAATGGAATTATGAGGATACCTCTCCCTG
GAACAACTGTATGGCTTCAGGATCTATTACCCCTTACCTATGAACCTCCTGGATTCACTGACAGTTCATGCCA
AAATGAGCCTTATTACAGCATTCGAACCCAGGGTGATAAACTTGCTCATGCAAAGTCCAGTGTGGCCTTGGCTC
CAGCCCTAGTGAAACTTACAGTCGTTTATTGGTCTATATGGAAATAGAGTCTTTGGGCATCAAAGGATTTATCA
GTCAGCTTTTGCCAACTGTTTTCAAATCAGATGCA TGGGGGATCTTACACACACTCCTTGAGATGTTTAGCTACC
GGATGCATCATATTACGCTCATTACAGAGTTCAGCTCCTGAGTCATCTTCATACTTTGGCTGCAGTTGCACAAA
CAAACCAGAACAGCTCCATCTTTGTGTGCGAGAGCACTGCTCTCAGGCTTATAACAGCATTAGGTAGCTCAGAGG
TACAACCGCAGTTTACACGCTTCCTTAGTGATCCCAAAACAGTGCTCTCAGCAGAATCTGAAGAACTGAACCGAG
CCTTGATATTGACCTTGGCTAGAGCAACTCATGTAACAGATTTTTTTACAGGCTCTGATTCAATTCAGGGAACTT
GGTGTAAGACATACTTCAGACCATCATGAGTTTCACTCCTCATAATTGGGCTTCACACACCCCTGAGCTGTTTTT
CAGGCCCACTACAGGCATTCTTCAAACAAAATAATGTGCCTCAGGAAAGCCGTTTTAATCTGAAAAAAATGTGG
AGGAGGAGTATAGGAAGTGGAAGTCAATGAGCAACGAAAACGACATTATTACCCACTTCTCTATGCAGGGCTCCC
CTCCTCTCTTTCTTTGTCTTCTCTGGAAAAATGCTCTTGGAAACAGATCATATTAATCAGATTGGCTATAGAGTAT
TAGAGAGAATTGGAGCCAGGGCCTTGGTAGCCCATGTGAGGACATTTGCAGATTTCTGGTATATGAGTTTCTA
CATCAGCAGGGGGTTCAGCAACTCAATAAATGCATTGAAATTCTTAATGACATGGTATGGAAGTATAACATTGTTA
CACTGGACAGATTAAATCTCTGCCTGGCCATGCGTAGTCACGAAGGAAATGAAGCCAGGTTTGTATTTCATAA
TTCAGTTGCTGTTACTCAAACCAAACGATTTTAGAAATCGAGTAAGTGACTTTGTGAAGGAAAATTCCTCAGAGC
ACTGGTTACAGAATGACTGGCACACCAAGCACATGAATTATCACAAGAAATATCCAGAGAAGTTGTATTTTGAGG
GCCTCGCGGAACAGGTGGATCCTCCCTGTACAGATCCAGTCTCCTATCTGCCATCTATTTTGGGAATGTGTGTC
TTCGATTCTTCCAGTATTTGATATAGTAATCCACAGATTTTATAGATTGCTTCCGGTATCCAAATCACTGGAGA
CTCTACTGGATCATCTAGGAGGCTTATATAAATTCATGATCGTCCAGTGACTTATCTGTATAACACTCTGCACT
ATTATGAAATGCACCTGAGAGACCGCGCATTTCTCAAACGAAAACCTCGTCCATGCGATCATTGGCTCTCTGAAGG
ATAATCGACCGCAGGGCTGGTGTCTAAGTGACACTTACCTGAAATGCGCTATGAATGCACGAGAGGAAAATCCTT
GGGTTCCAGATGACACCTACTATTGCAGATTGATTGGCAGACTAGTCGATACGATGGCTGGCAAATCTCCTGGTC
CCTTTCAAACCTGTGACTGGAGATTCAATGAGTTTCCCAACCCAGCTGCCCATGCTCTCCATGTTACTTGTGTGG
AGCTCATGGCCTTGGCAGTTTTCAGGCAAAGAAGTTGGGAATGCCCTTCTAAATGTTGTCTTAAAGAGTCAGCCTT
TAGTGCCAAGAGAGAACATTACAGCATGGATGAATGCAATTGGTTTGATCATCACTGCCCTACCAGAGCCATATT

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FIGURE 128B

GGATTGTTCTTCATGATCGAATTGTGAGTGTTCATCAGCAGCCCCAGCTTGACGTCTGAAACAGAGTGGGTTGGCT
ATCCATTCCGCCTCTTTGATTTCACCTGCTGTCATCAGTCGTAAGTCTGAGATGAGTTGTAGCTATACGTTAGCTC
TTGCACATGCTGTGTGGCACCATTCTAGCATCGGACAACCTTTCTCTCATTCCAAAGTTTCTTACTGAAGTACTTC
TTCCTATAGTGAAGACCGAATTCCAGTTGCTTTATGTATACCATCTTGTGGACCATTTTTACAAAGATTTTCAGC
AAGAGAGAACTCGTTGTATGATAGAGATTGGTGTGGCGTTTTATGACATGCTGCTGAATGTTGACCAGTGTAGCA
CCCATTTAAATTACATGGATCCCATCTGTGACTTCCTCTATCACATGAAGTATATGTTTACTGGTGACAGCGTGA
AAGAGCAAGTAGAGAAGATTATCTGTAACCTTAAACCAGCTTTAAACCTTCGTCTTCGATTTCATCACACACATTA
GCAAGATGGAGCCAGCTGCAGTGCCTCCACAAGCCATGAACAGTGGGTCTCCAGCACCTCAGTCTAATCAGGTGC
CCGTGCTTTTACCAGTAACTCAGTGAAGCCAGACTGTACTGTGGAGAAAGTAGAAATATATCCGTCTTTGAGAG
TGGACTCAAACCTTTTAAATCTGAATGCGATCACACTGTAGTGATATAGTAGAAGCAGTGATGATATTCAGATTG
TTTTATTTTGAATCAAATGATGAATCTGTTGACACCTTATAACTCCCATCTCCCTATCTATATTTTGTCTCTAA
GAGATCAAGTAAGATACATGTTGTTTCATATTCATAACAACCTATTAGAGCTATGTAGGAACATAGAGGTATCTGT
GATCAAATGACTTGTCAATTGGCACTTTCAGTCTTTCCTATTCTAGCCGTTGTTTTGTTTGTATTTTTTATTATT
AATGACATATTTAGTCTTCAGATATATTTTAAAGGCACCACACATGTAAACAGTTATTACAAATATTTTAT
ACATAAATCTCTTGGTAGATTTTCAGAATAATAGAGATTTATATCAAGAAAAGGAATCTAGATTTTGTGCAATTG
TAGGAGCAAACAAGGCTTCATATTCTTTTTTAAATGACTTGAAATTTTATTATAAATTTCCATAGTTTCTATCAA
GGTCAACTGGCAGTTTATTACCTTTGCTATGGACTTGAACCTTACTGTATAAAATTAGTTGGAAGCCATGTAAGA
AAATAACATCTGAAAATCTTGAACCTTAAATCATGCTTAAATGGTTGATTCTCCAATTTCTTTTTTAAAAATA
AGTTAATTGCTTTTGCAGGTTGACACTCTCACCTGACAGATGATGTAATTCTTCAATTTTATAATCTTAAATTT
TTTAAATTTTATATTTGTAAATACAGTACACATTTTATTTCTTGGATTTTGAAGACATTGTTAATTTTGGGGGA
ATTGGCATTGCGAAAGACTTGAAAATAATGAGTAAAGTCTGCTGAATGAATAAAAAAAAAAAAAAAAAAACTCGA
G

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FIGURE 129

METQLQSIFEEVVKTEVIEEAFFPGMFMDTPEDKTKLISCLGAFRQFWGGLSQESHEQCIQWIVKFIHGQHSPKR
ISFLYDCLAMAVETGLLPRLVCESLINSDTLEWERTQLWALTFKLVKRIIGGVNDKGVDRDLLKVILEKILTIPN
TVSSAVVQQLLAAREVIAIYLERNACLLPAYFAVTEIRKLYPEGKLPHWLLGNLVSDFVDTFRPTARINSICGR
SLLPVVNNNSGAICNSWKLDPATLRFPLKGLLPYDKDLFEPQTALLRYVLEQPYSRDMVCNMLGLNKQHKQRCPL
EDQLVDLVVYAMERSETEEFDDGGTSQLLWQHLSQLIFFVLFQFASFPHMVLSLHQKLAGRGLIKGRDHLMWV
LLQFISGSIQKNALADFLPVMKLFDDLYPEKEYIPVPDINKPQSTHAFAMTCIWIHLNRKAQNDSKLQIPIPHS
LRLHHEFLQQSLRNKSLQMNDYKIALLCNAYSTNSECFITLPMGALVETIYGNGIMRIPLPGTNCMASGSITPLPM
NLLDSLTVHAKMSLIHSIATRVIKLAHAKSSVALAPALVETYSRLLVYMEIESLGKGFISQLLPTVFKSHAWGI
LHTLLEMFSYRMHHIOPHYRVQLLSHLHTLAAVAQTNQNLHLCVESTALRLITALGSSEVQPQFTRFLSDPKTV
LSAESEELNRALILTLARATHVTDFFTGSDSIQGTWCKDILQTIMSFTPHNWASHTLSCFFGPLQAFFKQNNVPQ
ESRFLNKKNVEEEYRKWKSMSNENDIITHFSMQGSPPLFLCCLLWKMLLETDHINQIGYRVLERIGARALVAHV
FADFLVYEFSTSAGGQQLNKCIEILNDMVWKYNIVTLDRILCLAMRSHEGNEAQVCYFIIQLLLLKPNDFRNRV
SDFVKENSPEHWLQNDWHTKHMNYHKKYPEKLYFEGLAEQVDPCTDPVSYLPYFGNVCLRFLPVFDIVIH
ELLPVSKSLETLLDHLGGLYKFHDRPVTYLYNTLHYEMHLRDRAFLKRKLVAHAIIGSLKDNRPQGWCLSDTYLK
CAMNAREENPWVPDDTYCRLIGRLVDTMAGKSPGPFPCDWRFNPNPAAHALHVTCVELMALAVSGKEVGNA
LLNVVLKSQPLVPRENITAWMNAIGLIITALPEPYWIVLHDRVSVISSPSLTSETEWVGYPFRLFDFTACHQSY
SEMSCSYTLALAHAVWHHSSIGQLSLIPKFLTEVLLPIVKTEFQLLYVYHLVGPFLQRFQQRTRCMIEIGVAFY
DMLLNVDQCSTHLNYMDPICDFLYHMKYMTGDSVKEQVEKIIICNLKPALKLRLRFITHISKMEPAAVPPQAMNS
GSPAPQSNQVPVSLPVTQ

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FIGURE 130

GGCCCCAAAGCCGCTCTAGCGCGCCGGGCGTCTTCTTACTTCCGCTGCCGCCGCCGCCACATCCCAGGACCCG
ACGGGCCCGCGCGCGGAGGCTCGGGGCAAGGTGGGGCGGGCCTCCCGAGCTCCCAGGACCCCGCGCGCTTCGCC
CACAGGCCCCGGCGAAGCCCGACCCGCGCGGGCGCCCCAGGGCCAGGGGAGGAGCCTAAGGACCCGGACGAGCGCC
GCTCCAGTAGGTGACAAGAGGAAACAAGAACCTCAGTTCAGGGGAAACACAGCAAGGAAATGTGAGCCCCAGGCT
GCAGAAGGAAGAGTCAGTGAATGGCTGCGGTGTGACAACATGCACCACCAGTGGCTTCTGCTGGCCGCATGCTTT
TGGGTGATTTTCATGTTTCATGGTGGCTAGCAAGTTCATCACGTTGACCTTTAAAGACCCAGATGTGTACAGTGCC
AAACAGGAGTTTCTGTTCTGACAACCATGCCGGAAGTGAGGAAGTTGCCAGAAGAGAAGCACATTCTGAGGAA
CTGAAGCCAACCTGGGAAGGAGCTTCCAGACAGCCAGCTCGTTCAGCCCCCTGGTCTACATGGAGCGCCTGGAACCTC
ATCAGAAACGTCTGCAGGGATGATGCCCTGAAGAATCTCTCGCACACTCCTGTCTCCAAGTTTGTCTGGACCGA
ATATTTGTCTGTGACAAGCACAAAGATTCTTTTCTGCCAGACTCCCAAAGTGGGCAACACCCAGTGGAAGAAAGTG
CTGATTGTTCTAAATGGAGCATTTTCTTCCATTGAGGAGATCCCCGAAAACGTGGTGCACGACCACGAGAAGAAC
GGCCTTCTCGGCTCTCTTCTTTCAGTGATGCAGAAATTCAGAAGCGATTGAAAACATACTTCAAGTTTTTTATT
GTAAGAGATCCCTTCGAAAGACTTATTTCTGCATTTAAGGATAAATTTGTTTACAATCCCCGGTTTGAGCCTTGG
TACAGGCATGAGATTGCTCCTGGCATCATCAGAAAATACAGGAGGAACCGGACAGAGACGCGGGGGATCCAGTTT
GAAGATTTTCGTGCGCTACCTCGGCGATCCGAACCACAGATGGCTAGACCTTCAGTTTGGGGACCACATCATTAC
TGGGTGACGTATGTAGAGCTCTGTGCTCCCTGTGAGATAATGTACAGTGTGATTGGACACCACGAGACCCTGGAG
GACGATGCCCCATACATCTTAAAGAGGCTGGCATTGACCACCTGGTGTCTATACCCGACTATCCCTCCGGGCATT
ACCGTGTATAACAGAACCAAGGTGGAGCACTATTTCTGGGCATCAGCAAACGAGACATCCGACGCCTGTATGCC
CGTTTTCGAAGGGGACTTTAAGCTCTTTGGGTACCAGAAACCAGACTTTTTGCTAAACTAATGCATAAGACCTATG
AATTCAAATATCTTTATTAGACCTGGGGCTAACAGGTGAAGATCTGAGCCAGAAATGACCCTTCTCCACCAC
ACCCCTCCTTTGAGGATGCCCCGGGCTCTCCACAGGCCTGTGAGTTGCCTCGGCATATGACGCAGAACCCCACT
GTTACAACCTTAGTTTGGATGTAAGATGCTCTGAGGACCCTGCCACACCCCTGCGTGCATTAGGATGTCGCTGGC
CTTTGCTCACCTCAGAGGGGAGAAAAGGCTAAAGATTTGACGTTTGACAGCCAGCAGGGAGGAAGCATCACACA
GCGTTAGGAGCCGTTTCTTTCAGGTGTTAAGGAAGGGGATGCCCCGTAGGTTCTCCTGGCTAGTCGGGGTGGCTT
CACCCATCACTGGTGGGTGTCAGGAACAGCACCCAGGACTCTGAGGAGGGACAGAGAAGCAAGGGGGCTGCTGAA
ATCGCAGAGACTTTTGCAGCATCAGATCTGAGGAGTAAACGGCACCTCTGGCCTTCATCTTGGTGCTGCGACAA
TTGTGGAGGCAAAGCATTCTTTCTGTGACTATTTTGTTCCTGTAGACAGTCAGCGATGGCCAGAGGGTGGTGTGG
TGTCCAGGGGTCCATCTTTCCAGAATCCATGCCTGTGTAATGCTGGTCCATGCTTCTGAACCTGTGTCTGCCAAG
CGCCTATTTTCATTTCAGCACAAAGACATACGATTTTAGAAGGTGAGGGGAGGGGAGGCTTTTTCTACCTGAGAAGGG
GAGTGTCTTTGAGGGCCTTAAAGGACCATGGCCCCAGGAATGGGGGCGCTGGTTGGGCTTGGAGCTCAGGCTGCT
GTGGATCCCGGCGCATCAGTTCCTGACTTGCCCTTACCTGGGTGGACAGCAGTGAATCTCCACCTGTCTTCTCCAGG
GAGCTCCCATGTTGGGGCTGAAGACGAGCAGGGGCAACCTGCCAGCATCACAGAATTCAGTGTAGTTTATACATT
TCGATTCTTTTCATCTCAGCAAAATGGGCACTGCCAGAGCCATTTCTGATCACACCACCATCCTGGACCATGTGA
CTGGAAGGTGGGTAACCAAGTTTACCAGCAATAAAACCCAGCGCCAGGTAGCCTCCAGCAGTGCGGCTTCTCGG
CAACAAGGTAGGCCCTGGTGCAGGGCAAGCCGACGACCATTTTCAGATACCGTCCACAGCCAGGACCGCTGAGA
ACTGGGACAGTTTCTGGGATGAGTGCCAGCCTGAGCCTGCATGGTGCCGCCGAGCCCGGGGTGGAGGAGGGAGC
CAGGCTTCGCTTCAAGGCGGCCTCTACCTTTTCTCAGAAATGGTTTCTGATTGTGTCAATGTGAAAGTTAAATAA
AATTTATGTGCCAACCTGAAAAAAAAAAAAA

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FIGURE 131

MHHQWLLLAACFWVIFMFMVASKFITLTFKDPDVYSAKQEFLLTTMPEVRKLPEEKHIPEELKPTGKELPDSQL
VQPLVYMERLELIRNVCRRDDALKNLSHTPVSKFVLDRIFVCDKHKILFCQTPKVGNTQWKKVLIVLNGAFSSIEE
IPENVVHDHEKNGLPRLSSFSDAEIQKRLKTYFKFFIVRDPFERLISAFKDKFVHNPRFEPWYRHEIAPGIIRKY
RRNRTETRGIQFEDFVRYLGDPNHRWLDLQFGDHI IHWVTYVELCAPCEIMYSVIGHHETLEDDAPYILKEAGID
HLVSYPTIPPGITVYNRTKVEHYFLGISKRDIRRLYARFEGDFKLFQKPDFFLN

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FIGURE 132

GGAATTCCTGATATACACCTGGACCACCACCAATGGATATACAAATGGCAAACAATTTTACTCCGCCCTCTGCA
ACTCCTCAGGGAAATGACTGTGACCTCTATGCACATCACAGCACGGCCAGGATAGTAATGCCTCTGCATTACAGC
CTCGTCTTCATCATTGGGCTCGTGGGAACTTACTAGCCTTGGTCGTCATTGTTCAAAACAGGAAAAAATCAAC
TCTACCACCTCTATTCAACAAATTTGGTGATTCTTGATATACTTTTTACCACCGCTTTGCCTACACGAATAGCC
TACTATGCAATGGGCTTTGACTGGAGAATCGGAGATGCCTTGTGTAGGATAACTGCGCTAGTGTTTTACATCAAC
ACATATGCAGGTGTGAACCTTTATGACCTGCCTGAGTATTGACCGCTTCATTGCTGTGGTGCACCCTCTACGCTAC
AACAAGATAAAAAGGATTGAACATGCAAAGGCGTGTGCATATTTGTCTGGATTCTAGTATTTGCTCAGACACTC
CCACTCCTCATCAACCCTATGTCAAAGCAGGAGGCTGAAAGGATTACATGCATGGAGTATCCAACTTTGAAGAA
ACTAAATCTCTTCCCTGGATTCTGCTTGGGGCATGTTTCATAGGATATGTACTTCCACTTATAATCATTCTCATC
TGCTATTCTCAGATCTGCTGCAAACCTTTCAGAAC TGCCAAACAAAACCCACTCACTGAGAAATCTGGTGTAAC
AAAAAGGCTCTCAACACAATTATTCTTATTATTGTTGTGTTTGTCTCTGTTTCACACCTTACCATGTTGCAATT
ATTCAACATATGATTAAGAAGCTTCGTTTCTCTAATTTCTGGAATGTAGCCAAAGACATTCGTTCCAGATTTCT
CTGCACTTTACAGTATGCCTGATGAACCTCAATTGCTGCATGGACCCTTTTATCTACTTCTTTGCATGTAAAGGG
TATAAGAGAAAAGTTATGAGGATGCTGAAACGGCAAGTCAGTGTATCGATTTCTAGTGCTGTGAAGTCAGCCCCT
GAAGAAAATTCACGTGAAATGACAGAAACGCAGATGATGATACATTCCAAGTCTTCAAATGGAAAGTGAATGGA
TTGTATTTTGGTTTATAGTGACGTAACTGTATGACAACTTTGCAGGACTTCCCTTATAAAGCAAAATAATTGT
TCAGCTTCCAATTAGTATTCTTTTATATTCTTTTCATTGGGCACTTTCCCATCTCCAACTCGGAAGTAAGCCCAA
GAGAACAACATAAAGCAAACAACATAAAGCACATAAAAAATGCAAATAAATATTTTCATTTTTATTTGTAAACGA
ATACACCAAAAAGGAGGCGCTCTTAATAACTCCCAATGTAAAAAGTTTTGTTTTAATAAAAAATTTAATTATTATT
TCTTGCCAACAAATGGCTAGAAAGGACTGAATAGATTATATATTGCCAGATGTTAATACTGTAACATACTTTTTTA
AATAACATATTTCTTAAATCCAAATTTCTCTCAATGTTAGATTTAATTCCTCAATAACACCAATGTTTTGTTTT
GTTTCGTTCTGGGTCATAAACTTTGTTAAGGAACCTTTTTGGAATAAAGAGCAGGATGCTGC

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FIGURE 133

MDIQMANNFPPSATPQGNDCLYAHHSTARIVMPLHYSLVFIIIGLVGNLLALVVIVQNRKKINSTTLYSTNLVI
SDILFTTALPTRIAYYAMGFDWRIGDALCRITALVFYINTYAGVNFMTCLSIDRFIAVVHPLRYNKKIKRIEHAKG
VCIFVWILVFAQTLPELLINPMSKQEAERITCMEYPNFEETKSLPWILLGACFIGYVLPLIIILICYSQICCKLFR
TAKQNPLTEKSGVNNKALNTIILIIIVFVLCFTPYHVAIIQHMIKKLRFSNFLECSQRHSFQISLHFTVCLMNFN
CCMDPFIYFFACKGYKRKVMRMLKRQVSVSISAVKSAPEENSREMTETQMMIHSKSSNGK

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FIGURE 134

CGCGGCTCAGTAATTGAAGGCCTGAAACGCCCATGTGCCACTGACTAGGAGGCTTCCCTGCTGCGGCACCTTCATG
ACCCAGCGGCGCGCGGCCAGTGAAGCCACCGTGGTGTCCAGCATGGCCGCGCTGCTCCTGGGCGCGGTGCTGCT
GGTGGCCCAGCCCCAGCTAGTGCCTTCCCGCCCCGCGAGCTAGGCCAGCAGGAGCTTCTGCGGAAAGCGGGGAC
CCTCCAGGATGACGTCCGCGATGGCGTGGCCCCAAACGGCTCTGCCCAGCAGTTGCCGCAGACCATCATCATCGG
CGTGCGCAAGGGCGGCACGCGCGCACTGCTGGAGATGCTCAGCCTGCACCCGACGTGGCGGCCGCGGAGAACGA
GGTCCACTTCTTCGACTGGGAGGAGCATTACAGCCACGGCTTGGGCTGGTACCTCAGCCAGATGCCCTTCTCCTG
GCCACACCAGCTCACAGTGGAGAAGACCCCCGCGTATTTACGTCGCCCAAAGTGCCTGAGCGAGTCTACAGCAT
GAACCCGTCCATCCGGCTGCTGCTCATCCTGCGAGACCCGTCGGAGCGCGTGCTATCTGACTACACCCAAGTGTT
CTACAACCACATGCAGAAGCACAAAGCCCTACCCGTCCATCGAGGAGTTCTGGTGCGGATGGCAGGCTCAATGT
GGACTACAAGGCCCTCAACCGCAGCCTCTACCACGTGCACATGCAGAACTGGCTGCGCTTTTTCCCGCTGCGCCA
CATCCACATTGTGGACGGCGACCGCCTCATCAGGGACCCCTTCCCTGAGATCCAAAAGGTCGAGAGGTTCTTAAA
GCTGTCGCCGAGATCAATGCTTCGAACCTCTACTTTAACAAAACCAAGGGCTTTTACTGCCTGCGGGACAGCGG
CCGGGACCGCTGCTTACATGAGTCCAAAGGCCGGGCGCACCCCCAAGTCGATCCCAAACCTACTCAATAAACTGCA
CGAATATTTTCATGAGCCAAATAAGAAGTTCTTCGAGCTTGTGGCAGAACATTTGACTGGCAGTGATTTGCAAT
AAGCTAAGCTCAGAACTTTCTACTGTAAGTTCTGGTGATCATCTGAGGGGAAAAAGAATTTTAAAAAAGCATT
TAAGGTATAATTTATTTGTAAAATCCATAAAGTACTTCTGTACAGTATTAGATTACAATTGCCATATATACTAG
TTATATTTTCTACTTGTTAAATGGAGGGCATTTTGTATTGTTTTTCATGGTTGTTAACATTGTGTAATATGTCT
CTATATGAAGGAATAACTATTTCACTGA

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FIGURE 135

MAALLLGAVLLVAQPQLVPSRPAELGQQELLRKAGTLQDDVRDGVAPNGSAQQLPQTIIIGVRKGGTRALLEMLS
LHPDVAAAENEVHFFDWEHHYSHGLGWYLSQMPFSWPHQLTVEKTPAYFTSPKVPERVYSMNPSIRLLLILRDPS
ERVLSDYTQVFYNHMQKHKPYPSIEEFLVRDGRNLNDYKALNRSLYHVMQNWLRFFPLRHHIVDGDRLIRDPF
PEIQKVERFLKLSPQINASNFFYNKTKGFYCLRDSGRDRCLHESKGRAHPQVDPKLLNKLHEYFHEPNKKFFELV
GRTFDWH

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FIGURE 136

CCGTCCCCGGCGGCJCCATGCCCCGATGCCCCGCGGGGGGCCATGGACGAGGGGGCCCGTGGACCTGCGCACCCGGC
CCAAGGCCGCCGACTCCCGGGCGCCGCGCTGCCGCTCCGCAAGCGCCCGCTGCGCGCGCCCTCCCCGGAGCCCG
CCGCTCCCCGCGGCGCTGCGGGCCTTGTCGTCCCCCTGGACCCTCTGCGCGGGCGGCTGCGACCTGCCGGCGGTCC
CCGGGCCCCCCCCACGGCCTGGCCCCGGCCGGAGGCGCTTTACTACCCCGGAGCCTTACTGCCTTTGTACCCCACTC
GGGCCATGGGCTCCCCGTTTCTCTGGTGAACCTGCCTACACCCCTATACCCCATGATGTGCCCCATGGAACACC
CCCTTTCTGCTGACATCGCCATGGCCACCCGTGCAGATGAGGACGGAGACACGCCTCTCCATATTGCTGTGGTGC
AGGGTAACCTGCCAGCTGTGCACCGGCTGGTCAACCTCTTCCAGCAGGGGGGGCCGGGAGCTCGACATCTACAACA
ACCTACGGCAGACACCGCTCCACCTGGCTGTGATCACCACATTACCGTCTGTGGTCCGGCTCCTGGTGACAGCTG
GTGCCAGCCCCATGGCGCTGGACCGCCATGGCCAGACGGCCGCTCACCTGGCGTGCGAGCACCGCAGCCCGACCT
GCCTGCGAGCCCTGCTGGACAGCGCAGCTCCGGGCACGTTGGACCTGGAGGCCCGCAATTATGACGGGCTCACCG
CCCTGCACGTGGCAGTGAACACCGAGTGCCAAGAAACCGTGCAGCTCTTGCTAGAGCGCGGTGCCGACATCGACG
CAGTGGACATTAAGAGCGGCCGCTCCCCGCTCATCCACGCCGTGGAAAAACAACAGCCTTAGCATGGTGCAGCTGC
TGCTGCAGCACGGCGCCAACGTGAACGCGCAAATGTACTCCGGCAGCTCCGCCCTGCACTCAGCGTCCGGCCGCG
GGCTCCTCCCGCTGGTGCGCACGCTGGTCCGCAGCGGCGCTGACAGCAGCCTCAAGAAGTCCACAACGACACGC
CGCTCATGGTGGCGCGCAGCCGCAGGGTCATCGACATCCTGAGGGGGAAGGCCACCCGGCCTGCTTCCACCTCCC
AGCCAGACCCCTCCCCTGACCGGAGCGCCAACACCTCCCCCGAGAGCAGCAGCCGCCTCAGCTCCAATGGTCTTC
TCTCCGCATCACCATCCTCCTCACCCCTCCAGTCTCCCCCAGGGACCCCCCTGGATTCCCCATGGCTCCTCCCA
ATTTCTTCTTCTTCCCCATCTCCACCCGCTTCTGCCCTTTGCTGGGGTCTTCCGAGGCCCTGGCCGGCCGG
TGCCCCCTCCCCAGCTCCAGGAGGCAGCTGAGGGGGATGGGGGGGCAGATCTTGGAATCATGAGGAGGGGGCCC
CCTGCCCAGAGGGGTCAACCCCTTCTGAAACTGTGAAGATCTGACTTCGCCCCCCCCCCCCCATCTTCGGGAC
CAGGATTTGCACAGAAGCACATGCACCTACCCATACACCCCTCTTCTGAGCACAGATGTTCCCCATCTCGCTC
CCTCCCAGGACTCTGACCCAGCATCTCAGGCACCAGTCCCTGTCCGGAATGCCACCCACATCTTCCATTTCCA
TGTCCTTCCCAGAGCTGGTGGACCCAGGGAACAGCCACTCCCTCCACTCTCTACCAGATAACTGAGGAGGGGA
GAGGTGGGCCGTAAACGGGCACGGATCACGATGTAAATTATTAAGCATTTTGGTTGGATTTCTTTTGTAAATAAAT
ATTTTTGTACCAT

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FIGURE 137

MDEGPVDLRTRPKAAGLPGAALPLRKRPLRAPSPPEPAAPRGAAGLVVPLDPLRGGCDLPAVPGPPHGLARPEALY
YPGALLPLYPTRAMGSPFPLVNLPTPLYPMMCPMEHPLSADIAMATRADEDGDTPLHIAVVQGNLPAVHRLVNLF
QQGGRELDIYNNLRQTPLHLAVITTLPSVVRLLVTAGASPMALDRHGQTAAHLACEHRSPTCLRALLDSAAPGTL
DLEARNYDGLTALHVAVNTECQETVQLLLERGADIDAVDIKSGRSPLIHAVENNSLSMVQLLLQHGANVNAQMYS
GSSALHSASGRGLLPVRTLVRSGADSSLKNCHNDTPLMVARSRVIDILRGKATRPASTSQPDPSPDRSANTSP
ESSRLSSNGLLSASPSSSPSQSPPRDPPGFPMAPPNFFLPSPSPPAFLPFAGVLRGPGRPVPPSPAPGGS

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FIGURE 138

CGGGCGCCAGAGGGCAAATGAGGGGCGGCGGGGTGGCGGGTCGGGGGAGACGCGGAATTTCCAGCGCGGGG
CTCTGGCTTACCTGCAACCGGGCAGTCTCTTTCTGTTTACGGAGAGAAAGGGGAAATGGAAAAGTCGGGGAGGC
GGTGGCTGGCGTCCGCTGCGCCGCCCTGGGCAGGCTCAGACGCCGTGAGTCAGGGGCAGAGCAGGGCGGTCTGA
GCGTGCGGGCGACGCGGGTCTCACTCGTCCGCTCCGCTCTGGACTGCGCGCCACGCTCTGGGGTCCGGCGCCCTG
GTTCTGCTTCTGCGCTGCGCGCGCGGATCCCAGTGGCCCGGCGTGCTCGGCTCCACAGGCCTGCAGCCAGC
ATCGCACCGAACCTTCGGGGGGCGCGGCTGGAGCGCTCGGCCGGCGTGGGAGCGCCAAGGCCGCAGATGCAATC
TTCTTACCGCGAAGAAGCCAGGGGAATAGGTAGCCACATCTTGTTTGCAGATAAGAAAGGAAGCTAACGCAGTAT
CTGCAAAGCCAGGAGTCTGACTCAGTACTTTTCTCACTCATGCATACAAAGCAGCTAAAAATGACACAGCTTATT
TACCATGCCCCTGACACTGCACTGAGCACTTTATGAGCTTGAACCTCTGTTAATCCTCACGACCACCTCATGAGAC
TCTCCAGAAAGAGCAACAGTAATGGAGTACATGAGCACTGGAAGTGACAATAAAGAAGAGATTGATTTATTAATT
AAACATTTAAATGTGTCTGATGTAATAGACATTATGAAAATCTTTATGCAAGTGAAGAGCCAGCAGTTTATGAA
CCCAGTCTAATGACCATGTGTCAAGACAGTAATCAAACGATGAGCGTTCTAAGTCTCTGCTGCTTAGIGGCCAA
GAGGTACCATGGTTGTATCAGTCAGATATGGAACGTGGAGGATTTGCTTGCTTTTGCAAACCATATATCCAAC
ACTGCAAAGCATTTTTATGGACAACGACCACAGGAATCTGGAATTTTATTAACATGGTCATCACTCCCCAAAAT
GGACGTTACCAAATAGATTCCGATGTTCTCCTGATCCCCTGGAAGCTGACTTACAGGAATATTGGTTCTGATTTT
ATTCTCGGGGCGCCTTTGGAAAGGTATACTTGGCACAAGATATAAAGACGAAGAAAAGAATGGCGTGTAAGCTG
ATCCCAGTAGATCAATTTAAGCCATCTGATGTGGAATCCAGGCTTGCTTCCGGCACGAGAACATCGCAGAGCTG
TATGGCGCAGTCCGTGGGGGTGAAACTGTCCATCTCTTATGGAAGCAGGCGAGGGAGGGTCTGTTCTGGAGAAA
CTGGAGAGCTGTGGACCAATGAGAGAATTTGAAATATTTTGGGTGACAAAGCATGTTCTCAAGGGACTTGATTTT
CTACACTCAAAGAAAGTGATCCATCATGATATTAAACCTAGCAACATTGTTTTCATGTCCACAAAGCTGTTTTG
GTGGATTTTGGCCTAAGTGTTCAAATGACCGAAGATGTCTATTTTCTAAGGACCTCCGAGGAACAGAGATTTAC
ATGAGCCCAGAGGTCTATCCTGTGCAGGGGCCATTCAACCAAGCAGACATCTACAGCCTGGGGGCCACGCTCATC
CACATGCAGACGGGCACCCACCCCTGGGTGAAGCGCTACCCTCGCTCAGCCTATCCCTCTACCTGTACATAATC
CACAAGCAAGCACCTCCACTGGAAGACATTGCAGATGACTGCAGTCCAGGGATGAGAGAGCTGATAGAAGCTTCC
CTGGAGAGAAAACCCCAATCACCGCCCAAGAGCCGACAGCTACTAAAACATGAGGCCCTGAACCCGCCAGAGAG
GATCAGCCACGCTGTGAGAGTCTGGACTCTGCCCTCTTGGAGCGCAAGAGGCTGCTGAGTAGGAAGGAGCTGGAA
CTTCTGAGAACATTGCTGATTCTTCTGTGCACAGGAAGCACCGAGGAATCTGAGATGCTCAAGAGGCAACGCTCT
CTCTACATCGACCTCGGCGCTCTGGCTGGCTACTTCAATCTTGTTTCGGGGACCACCAACGCTTGAATATGGCTGA

AGGATGCCATGTTTGCTCTAAATTAAGACAGCATTGATCTCCTGGAGGCTGGTTCTGCTGCCTCTACACAGGGGC
CCTGTACAGTGAATGGTGCCATTTTCGAAGGAGCAGTGTGACCTCCTGTGACCCATGAATGTGCCTCCAAGCGGC
CCTGTGTGTTTGACATGTGAAGCTATTTGATATGCACCAGGTCTCAAGGTTCTCATTCTCAGGTGACGTGATTC
TAAGGCAGGAATTTGAGAGTTCACAGAAGGATCGTGTCTGCTGACTGTTTCATTCACTGTGCACTTTGCTCAAAA
TTTTAAAAATACCAATCACAAGGATAATAGAGTAGCCTAAAATTACTATTCTTGGTTCTTATTTAAGTATGGAAT
ATTCATTTTACTCAGAATAGCTGTTTTGTGTATATTGGTGTATATTATATAACTCTTTGAGCCTTTATTGGTAAA
TTCTGGTATACATTGAATTCATTATAATTTGGGTGACTAGAACAACTTGAAGATTGTAGCAATAAGCTGGACTAG
TGTCCTAAAAATGGCTAACTGATGAATTAGAAGCCATCTGACAGCAGGCCACTAGTGACAGTTTCTTTTGTGTTT
CTATGGAAACATTTTATACTGTACATGCTATGCTGAAGACATTCAAACCGTGATGTTTTGAATGTGGATAAACT
GTGTAAACCACATAATTTTTGTACATCCCAAAGGATGAGAATGTGACCTTTAAGAAAAATGAAAACTTTTGTAAA
TTATTGATGATTTTGTAAATCTTATGACTAAATTTCTTTTAAGCATTTGTATATTAAATAGCATACTGTGTAT
GTTTTATATCAAATGCCCTTCATGAATCTTTCATACATATATATTTGTAACATTGTAAAGTATGTGAGTAGTCT
TATGTAAAGTATGTTTTTACATTATGCAAATAAAACCAATACTTTTGTCCAATGTGGTTGGTCAAATCAACTGA
ATAAATTCAGTATTTTGCCTT

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FIGURE 139

MEYMSTGSDNKEEIDLLIKHLNVSDVIDIMENLYASEEPAVYEPSLMTMCQDSNQNDERSKSLLLSGQEV PWLSS
VRYGTVEDLLAFANHISNTAKHFGQRPQESGILLNMVITPQNGRYQIDSDVLLIPWKLT YRNIGSDFIPRGAFG
KVYLAQDIKTKKRMACKLIPVDQFKPSDVEIQACFRHENIAELYGAVLWGETVH LFMEEAGEGGSVLEKLESCGPM
REFEIIWVTKHVLKGLDFLHSSKKVIHHDIKPSNIVFMSTKAVLVDFGLSVQMTEDVYFPKDLRGTEIYMSPEVIL
CRGHSTKADIYSLGATLIHMQTGTPPWVKRYPRSA YPSYLYIIHKQAPPLIEDIADDCSPGMRELIEASLERNPNH
RPRAADLLKHEALNPPREDQPRCTSLDSALLERKRLLSRKELELPENIADSSCTGSTESEMLKRQ RSLYIDLGA
LAGYFNLVRGPPTLEYG

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FIGURE 140

GCTGCTGCGACAGTCCACTACCTTTTTTCGAGAGTGACTCCCGTTGTCCCAAGGCTTCCCAGAGCGAACCTGTGCG
GCTGCAGGCACCGGCGCGTTCGAGTTTTCCGGCGTCCGGAAGGACCGAGCTCTTCTCGCGGATCCAGTGTTCCGTTT
CCAGCCCCAATCTCAGAGCCGAGCCGACAGAGAGCAGGGAACCGGCATCGCCAAAGCCGCGGCGATCGGCATCG
ACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCAAGGTGGAGATCATCGCCAACGACCAGGGCA
ACCGCACCACCCCCAGCTACGTGGCCTTACGCGACACCGAGCGGCTCATCGGGGATGCGGCCAAGAACCAGGTGG
CGCTGAACCCGCGAGAACACCGTGTTTGACGCGAAGCGGCTGATCGGCCGCAAGTTCGGCGACCCGGTGGTGCAGT
CGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACAAGCCCAAGGTGCAGGTGAGCTACAAGGGGG
ACACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGACCAAGATGAAGGAGATCGCCGAGGCGTACC
TGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACTTCAACGACTCGCAGCGCCAGGCCACCAAGG
ATGCGGGTGTGATCGCGGGGGCTCAACGTGCTGCGGATCATCAACGAGCCACGGCCGCCCATCGCCTACGGCC
TGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACCTGGGCGGGGGCACCTTCGACGTGTCCATCC
TGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGGACACCCACCTGGGTGGGGAGGACTTTGACA
ACAGGCTGGTGAACCACTTTCGTGGAGGAGTTCAAGAGAAAACACAAGAAGGACATCAGCCAGAACAAGCGAGCCG
TGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCTCCAGCACCCAGGCCAGCCTGGAGATCG
ACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGGCGAGGTTTCGAGGAGCTGTGCTCCGACCTGT
TCCGAAGCACCTTGAGCCCCGTGGAGAAGGCTCTGCGCGACGCCAAGCTGGACAAGGCCAGATTACGACCTGG
TCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGCTGCAGGACTTCTTCAACGGGCGCGACCTGA
ACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGGTGCAGGCGGCCATCCTGATGGGGGACAAGT
CCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCGTGCTGCTGGGGCTGGAGACGGCCGGAGGCGTGA
TGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGACGCAGATCTTACCACCTACTCCGACAACC
AACCCGGGGTGTGATCCAGGTGTACGAGGGCGAGAGGGCCATGACGAAAGACAACAATCTGTTGGGGCGCTTCG
AGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCGAGGTGACCTTCGACATCGATGCCAACGGCA
TCCTGAACGTACGGCCACGGACAAGAGCACCGGCAAGGCCAACAAGATCACCATCACCACGACAAGGGCCGCC
TGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGTACAAAGCGGAGGACGAGGTGCAGCGCGAGA
GGGTGTACGCCAAGAACGCCCTGGAGTCCTACGCC TTCAACATGAAGAGCGCCGTGGAGGATGAGGGGCTCAAGG
GCAAGATCAGCGAGGCCGACAAGAAGAAGGTGCTGGACAAGTGTCAAGAGGTGATCTCGTGGCTGGACGCCAACA
CCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGGAGCAGGTGTGTAACCCCATCATCAGCGGAC
TGTACCAGGGTGCCGGTGGTCCCCGGGCCTGGGGGCTTCGGGGCTCAGGGTCCCAAGGGAGGGTCTGGGTGAGGCC
CCACCATTGAGGAGGTAGATTAGGGGCTTTTCCAAGATTGCTGTTTTTTGTTTTGGAGCTTCAAGACTTTGCATTT
CCTAGTATTTCTGTTTGTGCTGTTCTCAATTTCTGTTGTTTGAATGTTGAAATTTTTTGGTGAAGTACTGAACCTT
GCTTTTTTTTCCGGTTTCTACATGCAGAGATGAATTTATACTGCCATCTTACGACTATTTCTTCTTTTTAATACAC
TTAACTCAGGCCATTTTTTAAGTTGGTTACTTCAAAGTAAATAAACTTTAAAATTCAAGTGA

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FIGURE 141

MAKAAAIGIDLGTTSYSCVGVFQHGKVEIIANDQGNRTTPSYVAFTDTERLIGDAAKNQVALNPQNTVFDKRLIG
RKFGDPVVQSDMKHWPQVINDGDKPKVQVSYKGD TKAFYPEEISSMVLTKMKEIAEAYLGYPVTNAVITVPAYF
NDSQRQATKDAGVIAGLNLVRIINEPTAAAIAYGLDRTGKGERNVLIFDLGGGTFDVSILTIDDGIFEVKATAGD
THLGGEDFDNRLVNHFVEEFKRKHKKDISQNKRAVRRRLTACERAKRTLSSSTQASLEIDSLFEGIDFYTSITRA
RFEELCSDLFRSTLEPVEKALRDAKLDKAQIHDLVLVGGSTRIPKVQKLLQDFFNGRDLNKSINPDEAVAYGAAV
QAAILMGDKSENVQDLLLLDVAPLSLGLETAGGVMTALIKRNSTIPTKQTQIFTTYSNQPGLIQVYEGERAMT
KDNLLGRFELSGIPPAPRGVPQIEVTFDIDANGILNVTATDKSTGKANKITITNDKGRLSKEEIERMVQEAKEY
KAEDVQRRERSAKNALESYAFNMKSAVEDEGLKGKISEADKKKVLDKCQEVISWLDANTLAEKDEFHKKRKELE
QVCNPIISGLYQGAGGPGPGGFGAQGPKGGSGSGPTIEVD

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GAGTGTGCCCGGTGCCGCCGACCGGGCGGCGCGCTGTGTGCCGTGGCTCCAGCCGCTGCCGCCCTCGATCTCCTC
GTCTCCCGCTCCGCCCTCCCTTTTCCCTGGATGAACTTGCCTCCTTTCTCTTCTCCGCCATGGAATTCGTCTCCG
TGCTTTTAGCCCTCCTGAGCCAAAGAAACCCAGACAACAGATGCCCATACGCAGCGTATAGCAGTAAC TCCCCA
GCTCGGTTTTCTGTGCCGTAGTTTTACAGTATTTAATTTTATATAATATATATTATTTATTATAGCATTTTTTGATAC
CTCATATTCTGTTTACACATCTTGAAAGGCGCTCAGTAGTTCTCTTACTAAACAACCCTACTCCAGAGAATGCGC
AACGCTGATTACCAGTACTACAGCTGCTACCGCCGCTTCTGGTCCTTTGGTGGACTACCTATGGATGCTCATCCT
GGGCTTCATTATTGCATTTGTCTTGGCATTCTCCGTGGGAGCCAATGATGTAGCAAATTCCTTTTGGTACAGCTGT
GGGCTCAGGTGTAGTGACCCTGAAGCAAGCCTGCA TCCTAGCTAGCATCTTTGAAACAGTGGGCTCTGTCTTAC
GGGGGCCAAAGTGAGCGAAACCATCCGGAAGGGCTTGATTGACGTGGAGATGTACAAC TCGACTCAAGGGCTACT
GATGGCCGGCTCAGTCAGTGCTATGTTTGGTTCTGCTGTGTGGCAACTCGTGGCTTCGTTTTTGAAGCTCCCTAT
TTCTGGAACCCATTGTATTGTTGGTGCAACTATTGGTTTCTCCCTCGTGGCAAAGGGGCAGGAGGGTGTCAAGTG
GTCTGAACTGATAAAAAATTGTGATGCTTGGTTCTGCTGCCCACTGCTTTCTGGAATTATGCTGGAATTTTATT
CTTCTGGTTCTGTGCATTCTCCTCCATAAGGCAGATCCAGTTCCTAATGGTTTGCAGCTTTGCCAGTTTTCTA
TGCTGTGCACAGTTGGAATAAACCTCTTTTCCATCATGTATACTGGAGCACCGTTGCTGGGCTTTGACAACTTCC
TCTGTGGGGTACCATCCTCATCTCGGTGGGATGTGCAGTTTTCTGTGCCCTTATCGTCTGGTTCTTTGTATGTCC
CAGGATGAAGAGAAAAATTGAACGAGAAATAAAGTGTAGTCCTTCTGAAAGCCCTTAATGGAAAAAAGAATAG
CTTGAAAGAAGACCATGAAGAAACAAAGTTGTCTGTTGGTGATATTGAAACAAGCATCCTGTTTCTGAGGTAGG
GCCTGCCACTGTGCCCTCCAGGCTGTGGTGGAGGAGAGAACAGTCTCATTCAAAC TTTGGAGATTGGAGGAAGC
TCCAGAGAGAGAGAGGCTTCCCAGCGTGGACTTGAAAGAGGAAACCAGCATAGATAGCACCGTGAATGGTGCAGT
GCAGTTGCCTAATGGGAACCTTGTCCAGTTCAGTCAAGCCGTCAGCAACCAAATAAAC TCCAGTGGCCACTCCCA
GTATCACACCGTGCATAAGGATTCCGGCCGTGTACAAAGAGCTACTCCATAAATTACATCTTGCCAAGGTGGGAGA
TTGCATGGGAGACTCCGGTGACAAACCTTAAAGGCGAATAATAGCTATACTTCTTATACCATGGCAATATGTGG
CATGCCTCTGGATTCAATCCCGTGCCAAAGAAGGTGAACAGAAGGGCGAAGAAATGGAGAAGCTGACATGGCCTAA
TGCAGACTCCAAGAAGCGAATTGCAATGGACAGTTACACCAGTTACTGCAATGCTGTGCTGACCTTCACTCAGC
ATCTGAGATAGACATGAGTGTCAAGGCAGCGATGGGTCTAGGTGACAGAAAAGGAAGTAATGGCTCTCTAGAAGA
ATGGTATGACCAGGATAAGCCTGAAGTCTCTCTCC TCTTCCAGTTCCTGCAGATCCTTACAGCCTGCTTTGGGT
ATTGCCCCATGGTGGCAATGACGTAAGCAATGCCATTGGGCCCTCTGGTTGCTTTATATTTGGTTTATGACACAGG
AGATGTTTCTTCAAAGTGGCAACACCAATATGGCTTCTACTCTATGGTGGTGTGGTATCTGTGTTGGTCTGTG
GGTTTGGGGAAGAAGAGTTATCCAGACCATGGGGAAGGATCTGACACCGATCACACCCTCTAGTGGCTTCAGTAT
TGAAC TGGCATCTGCCCTCAGTGTGGTGATTGCATCAAATATTGGCCTTCCCATCAGTACAACACATTGTAAAGT
GGGCTCTGTTGTGCTGTGGCTGGCTCCGGTCCAAGAAGGCTGTTGACTGGCGTCTCTTTCGTAACATTTTTAT
GGCCTGGTTTGTACAGTCCCATTTCTGGAGTTATCAGTGCTGCCATCATGGCAATCTTCAGATATGTCATCCT
CAGAATGTGAAGCTGTTTGAGATTAATAATTTGTGTCAATGTTTGGGACCATCTTAGGTATTCCTGCTCCCCTGAA
GAATGATTACAGTGTTAACAGAAGACTGACAAGAGTCTTTTTATTTGGGAGCAGAGGAGGGAAGTGTTACTTGTG
CTATAACTGCTTTTGTGCTAAATATGAATTGTCTCAAATTAGCTGTGTAAATAGCCCCGGGTTCCACTGGCTCC
TGCTGAGGTCCCCTTTCTTCTGGGCTGTGAATTCCTGTACATATTTCTCTACTTTTTGTATCAGGCTTCAATTC
CATTATGTTTTAATGTTGTCTCTGAAGATGACTTGTGATTTTTTTTTTCTTTTTTTTAAACCATGAAGAGCCGTTT
GACAGAGCATGCTCTGCGTTGTTGGTTTACCAGCTTCTGCCCTCACATGCACAGGGATTTAAACAACAAAAATAT
AACTACAAC TCCCTTGTAGTCTCTTATATAAGTAGAGTCTTGGTACTCTGCCCTCCTGTGAGTAGTGCCAGGA
TCTATTGGCATATTCGGGAGCTTCTTAGAGGGATGAGGTTCTTTGAACACAGTGAAAATTTAAATTAGTAAC TTT
TTTGCAAGCAGTTTATTGACTGTTATTGCTAAGAA GAAGTAAGAAAGAAAAGCCTGTTGGCAATCTTGGTTATT
TCTTTAAGATTCTGGCAGTGTGGGATGGATGAATGAAGTGAATGTGAAC TTTGGGCAAGTTAAATGGGACAGC
CTTCCATGTTCAATTGTCTACCTCTTAACTGAATAAAAAAGCCTACAGTTTTTTAGAAAAAACCCGAATTC

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FIGURE 143

MATLITSTTAATAASGPLVDYLWMLILGFIIAFVLAFSVGANDVANSFGTAVGSGVVTLKQACILASIFETVGSV
LLGAKVSETIRKGLIDVEMYNSTQGLLMAGSVSAMFGSAVWQLVASFLKLPISGTHCIVGATIGFSLVAKGQEGV
KWSELIKIVMSWVFSPLLSGIMSGILFFLVRAFILHKADVPVNGLRALPVFYACTVGINLFSIMYTGAPLLGFDK
LPLWGTILISVGCASFVFCALIVWFFVCPMRKRIEREIKCSPSESPLEKKNSLKEDEETKLSVGDIENTKHPVSE
VGPATVPLQAVVEERTVSFKLGDLEEAPERERLPSVDLKEETSIDSTVNGAVQLPNGNLVQFSQAVSNQINSSGH
SQYHTVHKDSGLYKELLHKLHLAKVGDCMGDSGDKPLRRNNSYTSYMAICGMPLDSFRAKEGEQKGEEMEKLW
PNADSKKRIRMDSYTSYCNVSDLHSASEIDMSVKAAMGLGDRKGSNGSLEEWYDQDKPEVSLLFQFLQILTACF
GSFAHGGNDVSNAGPLVALYLVYDTGDVSSKVATPIWLLLYGGVGICVGLWVWGRRVIQTMGKDLTPITPSSGF
SIELASALTVVIASNIGLPISTTHCKVGSVSVGWLRSKKAVDWRLFRNIFMAWFVTVPISGVISAAIMAFRYV
ILRM

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FIGURE 144A

TTGATTTGGTATAGTGGGAACATTGCTTTGGAGACAGATGAACTGGATTCTGATCGTGACCCTGCTATTTTCTC
CTTGTTGACTTTGGAGCCATGAGACCCAGATCCTGCTGCTCCTGGCCCTGCTGACCCTAGGCCTGGCTGCACA
ACACCAAGACAAAGTGCCCTGTAAGATGGTGGACAAGAAGGTCTCGTGCCAGGTTCTGGGCCTGCTCCAGGTCCC
CTCGGTGCTCCCGCCAGACACTGAGACCCTTGATCTATCTGGGAACCAGCTGCGGAGTATCCTGGCCTACCCCT
GGGCTTCTACACGGCACTTCGTCACTGGACCTGAGCACCAATGAGATCAGCTTCCTCCAGCCAGGAGCCTTCCA
GGCCCTGACCCACCTGGAGCACCTCAGCCTGGCTCACAACCGGCTGGCGATGGCCACTGCGCTGAGTGCTGGTGG
CCTGGGCCCCCTGCCACGCTGACCTCCCTGGACCTGTCTGGGAACAGCCTGTACAGCGGCCTGCTGGAGCGGCT
GCTGGGGGAGGCACCCAGCCTGCATACCCTCTCACTGGCGGAGAACAGTCTGACTGCGCTACCCGCCACACCTT
CCGGGACATGCCTGCGCTGGAGCAGCTTGACCTGCATAGCAACGTGCTGATGGACATCGAGGATGGCGCCTTCCA
GGGCTGCCCGCCTGACCCATCTCAACCTCTCCAGGAATTCCCTCACCTGCATCTCCGACTTCAGCCTCCAGCA
GCTGCGGGTGCTAGACCTGAGCTGCAACAGCATCGAGGCCTTTCAGACGGCCTCCAGCCCCAGGCTGAGTTCCA
GCTCACTGGCTTGACCTGCGGGAGAACAACCTGCTCCATTTCCCCGACCTGGCCGCGCTCCCGAGACTCATCTA
CCTGAACCTTGTCACAAACCTCATCCGGCTCCCCACAGGGCCACCCAGGACAGCAAGGGCATCCACGCACCTTC
CGAGGGCTGGTCAGCCCTGCCCTCTCAGCCCCCAGCGGGAATGCCAGCGGCCGCCCTTTCCAGCTCTTGAA
TCTGGATTTGAGCTACAATGAGATTGAGCTCATCCCCGACAGCTTTCTTGAGCACCTGACCTCCCTGTGCTTCCT
GAACCTCAGCAGAACTGCTTGCGGACCTTTGAGGCCCGCGCTTAGGCTCCCTGCCCTGCCTGATGCTCCTTGA
CTTAAGCCACAATGCCCTGGAGACACTGGAAGTGGGCGCCAGAGCCCTGGGGTCTCTGCGGACGCTGCTCCTACA
GGGCAATGCCCTGCGGGACCTGCCCCATACACCTTTGCCAATCTGGCCAGCCTGCAGCGGCTCAACCTGCAGGG
GAACCGAGTCAGCCCTGTGGGGGGCCAGATGAGCTGGCCCTCCGGCTGTGTGGCCTTCTCCGGCATCACCTC
CCTCCGCAGCCTGAGCCTGGTGGATAATGAGATAGAGCTGCTCAGGGCAGGGGCCTTCTCCACACCCCACTGAC
TGAGCTGGACCTTTCTTCCAATCCTGGGCTGGAGGTGGCCACGGGGCCTTGGGAGGCCTGGAGGCCTCCTTGA
GGTCTTGCACTGCAGGGCAACGGGCTGATGGTCTGACAGGTGGACCTGCCCTGCTTCATCTGCCTCAAGCGGCT
CAATCTTGCCGAGAACCCTGAGCCACCTTCCCGCTGGACACAGGCTGTGTCACTGGAGGTGCTGGACCTGCG
AAACAACAGCTTCAGCCTCCTGCCAGGCAGTGCCATGGGTGGCCTGGAGACCAGCCTCCGGCGCCTCTACCTGCA
GGGGAATCCACTCAGCTGCTGCGGCAATGGCTGGCTGGCAGCCAGCTGCACCAGGGCCGTGTGGACGTGGACGC
CACCCAGGACCTGATCTGCCGCTTCAGCTCCCAGGAGGAGGTGTCCCTGAGCCACGTGCGTCCCGAGGACTGTGA
GAAGGGGGGACTGAAGAATCAACCTCATCATCATCTCACCTTCATACTGGTCTCTGCCATCTCTCTACCAC
GCTGGCCGCTGCTGCTGCGTCCGCGGCAGAAAGTTAAACCAACAGTATAAAGCCTAAAGAAGCCGGGAGACACT
CTAGGTCACTGGGGGAGCCTGAGGTACAGAGAAGAGTGAGGACTGACTCAAGGTACACAGTGATCCGGATCCCA
GAACTCTGGTCTCCAAATTACAGCCCAGGACACCTTTCTCTGCCGCTGCTGCATCAGTGGGTGACCCCTTCCC
GGGCTGCACTTTGGGTCCAGCTGTGGAAGCCAGAAGTTGGGCGGTTTCAGGGACAGCCGAGAATAATGTTGACCT
GTCAGATCAACAAATCTTCACTGAGCATGTATTTTGTGCCACACCCTGCTCTGGGCACTGGGAATGCTGGGAAAT
GAGATACATTCCCGCCCTCAAGAATCTCCCAGTCTGGTAGGAGAGAGTGCTGCAGAGCCACGTGGCCGCCACGCA
GTGTGCTTAGGGCCTGAGGTGTGAAAGCCCAGGGCTCCAGAGCTCGGCAGGCCCGCTGGTTTGGTGGGCTGAGT
CCTGCCCCGGCTGTGCAGGGTGAGGGAGGGCCAAGCCAGGAGGATTTGTCTGAGACATTTCCAAGCAGACTGTTT
GTCAGTCTTCTGAGAATGACTTTCAGTCTCTCTGAAAATGAAAAGCTTAGGACCGGAAGAGAGAATTGGAGCTG
TACGAGTGTGTCTCGGATCTGGTATTGTTAGGTGGGCCACGGCGGCTCCAGCAGGGTCTGGTTAAGGGGTCCAGC
CCAGCACTGGACCATTCGCTCTCTGCTCTGGAATTTGCCCTCTCCCTTCTTGGCACTCTCATGTTGCATACCCTG
ACCCAGTGCTGCTCTAAGCACCGTCCCTGCCAGCCCCACTTCTCCATCGCAGCCCCACCTTGGCTGCTGAGCC
AGGAGCTAAACCTTAGATATCTGGTTCTGTTTGCACCCAGCTTGGCAGATGTGGATTTGAATCCAAGCCTTGT
GTCTGCCCCATATGTGACAGCTCTATATTTTATCCCGTTTTATAAAGAGGAAACTGAAGTTCTGAAATCTCCT
TCCAGGGCCCCAGCTAACTAATGCCATAGGTGAGATTCAAACCTTCATCCTTCTGTCTCCAGGGCCTGATCTTTA
CCACTGCAGGGGCTGCAGGGCGTTAAGTGGACAGGAAGTGGCCCCACATAGCCCGAGCAGGGTCTGGAAGCATCC
TGTGCTGTGCACACCTGCTCTCTCCTCTCTCCAGGCAGGCAGCTGCAGGCGCTCTCCTCCTTCTCTGCCTGTTT
CCCTCCTCCCTTCCCTTCCACCTGGTGTGGGTTCTCCTGTTCTCTCTGTGCTCTTGCACTCTCTCATTCCTTTT
TCCTCTATGGAGCAGAGCCTGGAGTTTGGAGCTATGGAATCCAACCTCCCCATTGCACAGATGGGGAAACTGAGG
CTTAGGAAGAGAATGAAACTTGTGGAGAGCTTATACAGAACCTCTGGGGGAAAAAAGAGCCCTTATTTGTGGGGT
GAGATTGGGGGTGGACCAGAGTGATGTCCTCTCTCAGCTATCACATCACAAGATAATGCTGGCTCCAACTTCC

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FIGURE 144B

TTTCTGTGCCTCATCATGCAAGGATCTTTTTTCCCTCTTACAAAAACAGGTAAAAAGCCTCACCCAGATGACCCC
CATCCCTCATACCATGGAGTCATGAGCTGTCTGGGAAGAATGGACGTGCTGGGACCAACTCAAGACCTTGTTTTG
CTGTCTTCATCATCTTACCTGTGCTTGGCCACAGTCTGGCTCATGATGTGGGCTCAGTAATGTGCGAGAAAGTG
AAAATGCCACTCTCTCCACCCCATTTTACAGAGGAGAACACCAAGGCCCAGAGGAAGTTAAGGGAGAGTCAATGG
GCAGAGCCAGGGCTAGGCCCTGGTGGTGTGTGGAGCAGCCAGGCAGACCCAGTCCTGGTTGGGATCACACCCACG
GGTGCTACTGCACGTAACACTCCTCCTTAGGCCTGGAGGCCAAGGTGTGGGTCCCCACGCCTGATCTTTGAAAAC
ACTACACAGGGCTGCTGTCACTTCCCAGGGCCCAGGCCTCAGCCCAGGCCTCGGGACCAACTCTTTGTATAACCT
ACCTGAATGTATTAAAACTAATTTTGAAAAAAAAA

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FIGURE 145

MRPQIILLALLTLGLAAQHODKVPCKMVDKKVSCQVLGLLQVPSVLPPDTETLDLSGNQLRSILASPLGFYTAL
RHLDLSTNEISFLQPGAFQALHLEHLSLAHNRLAMATASAGGLGPLPRVTSLDLSGNSLYSGLLERLLGEAPS
LHTLSLAENSLTRLTRHTFRDMPALEQLDLHSNVLMIEDGAFEGLPRLTHLNLSRNSLTCISDFSLQQLRVLDL
SCNSIEAFQTASQPQAEFQLTWDLRENKLLHFPDLAALPRLIYLNLSNNLIRLPTGPPQDSKGIHAPSEGWSAL
PLSAPSGNASGRPLSQLLNLDLSYNEIELIPDSFLEHLTSLCFLNLSRNCLRTFEARRLGSLPCLMLLDLSHNAL
ETLELGARALGSLRTLTLQGNALRDLPPYTFANLASLQRLNLQGNRVSPCGGPDEPGPSGCVAFSGITSLRSLSL
VDNEIELLRAGAFLLHTPLTELDLSSNPGLEVATGALGGLASLEVLALQGNGLMVLQVDLPFCICLKRLNLAENR
LSHLPWTQAVSLEVLDLRNNSFSLPGLSAMGGLETSLRRLYLQGNPLSCCGNGWLAAQLHQGRVDVDTQDLIC
RFSSQEEVSLSHVRPEDCEKGGLKNINLIILTFILVSAILLTTLAACCCVRRQKFNQQYKA

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FIGURE 146

GAATTTTCTGCAAGGATCATATCTAAGTGCACCTTTTGTGTGATACTTCATTCTAGACATTGAGTCTCACTCTAC
CCCCAGGCTGAAGTGCAGTGGTGTGATCTCGGTTCACTGCAACCTCCGCCTCCAGGTTCAAGTGATTCTCGTAC
CTCAGCCTCCCAGTAGCTGGGATTACAGGCGCCTGCCACCATGCCTGGCTGATATTTATATTTTTAGTAGAGAT
GGAGTTTCACCATGTTGGCCAGGCTGGTCTCGAACCTGGACCTCAGATCTTGTAGAAAATTTAGCTGTAGCCC
TTGGACTAGAAGCTGAAATAACAGAAGCTGTGTACGATGCATTAGGGTATTGAAGAAAATTAAGTTTTGAATTAA
ATATTTGGAATATAAGGAAATAAGGAAAGTTGACTGAAAATCGGGCGGAAAGAAAATACAAATCACACGCATAATG
GATGAAAGGAACCGACAGGTCACTTTTACAAAGAGAAAAGTTTGGATTAATGAAGAAAGCCTATGAAGTTAGTGTG
CTCTGTGACTGTGAAATAGCACTCATCATTTTTCAACAGCTCTAACAAACTGTTTCAATATGCTAGCACTGATATG
GACAAAGTTCTTCTCAAGTATACAGAATATAATGAACCTCATGAAAGCAGAACCAACTCGGATATTGTTGAGGCT
CTGAACAAGAAGGAACACAGAGGGTGGCAGAGCCAGACCCTGATACTTCATATGTGCTAACTCCACATACAGAA
GAAAAATATAAAAAAATTAATGAGGAATTTGATAATATGATGCGGAATCATAAAATCGCACCTGGTCTGCCACCT
CAGAACTTTTCAATGTCTGTACAGTTCCAGTGACCAGCCCCAATGCTTTGTCTTACACTAACCAGGGAGTTTCA
CTGGTGTCCCCATCTTTGGCAGCCAGCTCAACGTTAACAGATTCAAGCATGCTCTCTCCACCTCAAACCATTA
CATAGAAATGTGTCTCCTGGAGCTCCTCAGAGACCACCAAGTACTGGCAATGCAGGTGGGATGTTGAGCACTACA
GACCTCACAGTGCCAAATGGAGCTGGAAGCAGTCCAGTGGGGATGGATTGTAAACTCAAGAGCTTCTCCAAAT
TTGATTGGAGCTACTGGTGCAAATAGCTTAGGCAAAGTCATGCCACAAAGTCTCCCCCTCCACCAGGTGGTGGT
AATCTTGGAAATGAACAGTAGGAAACCAGATCTTCGAGTTGTCTATCCCCCTTCAAGCAAGGGCATGATGCCTCCA
CTATCGGAGGAAGAGGAATTGGAGTTGAACACCCAAAGGATCAGTAGTTCTCAAGCCACTCAACCTCTTGCTACC
CCAGTCGTGTCTGTGACAACCCCAAGCTTGCCCTCCGCAAGGACTTGTGTACTCAGCAATGCCGACTGCCTACAAC
ACTGATTATTCACTGACCAGCGCTGACCTGTGAGCCTTCAAGGCTTCAACTCGCCAGGAATGCTGTGCTGCGTGGGA
CAGGTGTGCGCCTGGCAGCAGCACCACCTAGGACAAGCAGCCCTCAGCTCTCTTGTGCTGGAGGGCAGTTATCT
CAGGGTTCCAATTTATCCATTAATACCAACCAAAACATCAGCATCAAGTCCGAACCGATTTCACCTCCTCGGGAT
CGTATGACCCCATCGGGCTTCCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCCGCCGCCACCACCGCAGCCC
CAGCCACAACCCCCGAGCCCCAGCCCCGACAGGAAATGGGGCGCTCCCCCTGTGGACAGTCTGAGCAGCTCTAGT
AGCTCCTATGATGGCAGTGATCGGGAGGATCCACGGGGCGACTTCCATTCTCCAATTTGTGCTTGGCCGACCCCCA
AACACTGAGGACAGAGAAAGCCCTTCTGTAAAGCGAATGAGGATGGACGCGTGGGTGACCTAAGGCTTCCAAGCT
GATGTTTGTACTTTTGTGTTACTGCACTGACCTGCCCTACATATCTAAATCGGTAAATAAGGACATGAGTTAAAT
ATATTTATATGTACATACATATATATATCCCTTTACATATATATGTATGTGGGTGTGAGTGTGTGTGTATGTGTG
GGTGTGTGTTACATACACAGAAATCAGGCACCTTACC TGCAAACTCCTTGTAGGTCTGCAGATGTGTGTCCCATGGC
AGACAAAGCACCCCTGTAGGCACAGACAAGTCTGGCACCTTCTTGGACTACTTGTTCGTAAAGATAACCAGTTTT
TGCAGAGAAACGTGTACCCATATATAAATCTCCACACTAGCTTGCAGAAACCTAGAGGGCCCCCTACTTGT
ATTTAACTGTGCAGTGACTGTAGTTACTTAAAGAGAAAATGCTTTGTAGAACAGAGCAGTAGAAAAGCAGGAACCA
AGAAAGCAATACTGTACATAAAATGTCAATTTATATTTTCAACCTGGCATGGGTGTCTGTTGCAAAGGGGTGCAT
GGGAAAGGGCTGTTGATATTAAAAACAAACAAAACAAAAAGCCCCACACATAACTGTTTTGCACGTGCAAAAAAT
GTATTGGGTCAAGAAGTGATCTTTAGCTAATAAAGAAAAGAGAAATAGAAAAACCGCATGAGATATTCAGAAAAATAC
TAGCCTAGAAATATAGAGCATTAACAAAGGAAAATTAATATATTAAGTTATAATTGGAATATGTCAGAAGTTTCT
TTTTACATTATATCTTAAAAATTAAGAAACTGATTTTAGCTCATGTATATTTTATATGAAAGAAAAACACCTT
ATGAATTGATGACTATATATAAAATTAATTCCTACTTTTGAACACATTCTGCTATGAATTATTTATATAAGCC
AAAGCTATATGTTGTAACTTTTTTTTTAGAGAATAGCTTTATCTTGGTTTAACTCTTTAGTTTTATTTTAAAGAGG
GAAAACAAAAAATATCTTGCAAGCAGAACCTTGAAAAAAGGAATTC

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MGKKIKQITRIMDERNRQVTFTRKKEGLMKKAYELSVLCDCEIALIIFNSSNKLFQYASTDMKVLLKYTEYNP
HESRTNSDIVEALNKKEHRCDSPPDTSYVLTPHTEEKYKKINEEFDNMMRNHKIAPGLPPQNFMSVTVPVTS
PNALSYTNPGSSSLVSPSLAASSTLTDSSMLSPPQTLHRNVSPGAPQRPPSTGNAGGMLSTDTLTPNGAGSSPV
GNGFVNSRASPNLIGATGANS LGKVMPTKSPPPPGGGLGMNSRKPDLRVIPPSSKGMMPPLSEEELELNTQR
ISSSQATQPLATPVVSVTTPSLPPQGLVYSAMPTAYNTDYSLTADLSALQGFNSPGMLS LGQVSAWQQHHLGQA
ALSSLVAGGQLSQGSNLSINTNQNISIKSEPI SPPRDRMTPSGFQQQQQQQQQQPPPPPPQPQPQPQPQPRQEM
GRSPVDSLSSSSSSSYDGS DREDPRGDFHSPIVLGRPPNTEDRESPVKRMRMDAWVT

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FIGURE 148

CAGGCCAGGACTCCACAAGGCTGGTCCCCTGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAACCCCT
GAGATGGCCCTCCAGCTCAGGCAGCAGTCCTCGCCCGGCCCTTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCC
ACCGTCTGCCAGGACCCAAAGGAGCCAGGGCTCTCTGCTGTGCAGGCTGTCTCTCTGAGAACCCGAGGAATGGC
GAGGATCAGATCTGCCCCAAATGCAGAGGGGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAACTCAG
GAGAAGGCTCACCCCGAGGTGGCTGAGGCTGGAAT TGGGTGCCCTTTGCAGGTGTGGCTGCTCCTTCAAGGGA
AGCCACAGTCTGTGCAAGAGCATGAGGTCACCTCCAGACCTCCACCTAAACCTGCTGTTGGGGTTCATGAAA
CAGTGGAAGGCCCGGCTGGGCTGTGGCTGGAGTC TGGGCCCATGGCCCTGGAGCAGAACCTGTCAGACCTGCAG
CTGCAGGCAGCCGTGGAAGTGGCGGGGACCTGGAGGTCGATTGCTACCGGGCACCCCTGCTCCGAGAGCCAGGAG
GAGCTGGCCCTGCAGCACTTCATGAAGGAGAAGCT TCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTTGAGAAC
ATTGTTGCTGTCTCAACAAGGAGGTGGAGGCCTCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTG
GACCGTGAGCGCATCCTGAGCTTGGAGCAGAGGGTGGTGGAGCTTCAGCAGACCCCTGGCCCAGAAAGACCAGGCC
CTGGGCAAGCTGGAGCAGAGCTTGGCCTCATGGAGGAGGCCTCCTTCGATGGCACTTTCTGTGGAAGATCACC
AATGTACCAGGCGGTGCCATGAGTCGGCCTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCC
AAGTATGGCTACAAGTTGTGCTGCGGCTGTACCTGAATGGAGATGGCACTGGAAAAGAGAACCCATCTGTGCTC
TTCATCGTGATCATGAGAGGGGAGTATGATGCGCTGCTGCCGTGGCCTTTCCGGAACAAGGTCACCTTCATGCTG
CTGGACCAGAAACAACCGTGAGCACGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCCTTCCAGAGGCC
CAGAGTGAAACCAACGTGGCCAGTGGATGCCACTCTTCTTCCCCCTCAGCAAACTGCAGTCACCCAAGCACGCC
TACGTGAAGGACGACACAATGTTCTCAAGTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCTGAGGG
AGCTCCAACCTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCCAAGACCTCAGGGCACAAA
GATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTGCACTTCGGGCTGGCCATCTGGTTAGGATGGCAG
GACGTGGGCTGGGCCCCACAAAGGCAAAGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCTCTGCACGGACCATG
CGACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTCACCAAATGAGAAGAAAATGGA
ACCAGGCTTGGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGA
CCTGGACACAGGCCTGCTCTCTTTTTCTCCAGGGT CAGAAACAGGACCGGGTGGAAGGGATGGGGTGCCAGTTTG
AATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGG
GGTTGGATTTGAAGACTTTTAAGTTTCCTTCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAG
TCCTAGAGCTACAGGGGTTCTGGAAACATTAGGAGCTTCCTGTCTCTCCAGCTCCTCACTCACCTTCAGTAACC
CCCACTGGACTGACCTGGTCCACAGGGCACCTGCCACCTGGGCCTGGCAGCTCAGCTTCCCCAACACGCAGGAG
CACACCCAGCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACTTCATGCAGGTGAAACCCAGTCACT
GTGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTCCTCTTCTGCTAGAGGCC
CCACCTTTGGTGCTTTCCAGAATCCCGTAACACCTGATTAAC TGAGGCATCCACTTCTTTCAGCAGACTGATCAG
GACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAACTCTTTCGAAGTTTTCTTAAAA
AAAAAAAAAAAA

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FIGURE 149

MASSSGSSPRPAPDENEFFPGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSI SPGSRLRTQE
KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVT SQTSHLNLLGFMKQWKARLGCGL ESGPMALEQNLSDLQL
QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD
RERILSLEQRVVELQQT LAQKDQALGKLEQSLRLMEEASF DGTFLWKITNVTRRCHESACGRTVSLFSPAFYTAK
YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPF RNKVTFMLLDQNNREHAIDAFRDLSSASFQRPO
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST

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FIGURE 150

CGCGCGGCCCCCTGTCTCCGGCCCCGAGATGAATCCTGCGGCAGAAAGCCGAGTTCAACATCCTCCTGGCCACCGAC
TCCTACAAGGTTACTCACTATAAACAATATCCACCCAACACAAGCAAAGTTTATTCTACTTTGAATGCCGTGAA
AAGAAGACAGAAAACCTCCAAATTAAGGAAGGTGAAATATGAGGAAACAGTATTTTATGGGTTGCAGTACATTCTT
AATAAGTACTTAAAAGGTAAAGTAGTAACCAAAGAGAAAATCCAGGAAGCCAAAGATGTCTACAAAGAACATTTTC
CAAGATGATGTCTTTAATGAAAAGGGATGGAACACTACATTCTTGAGAAGTATGATGGGCATCTTCCAATAGAAATA
AAAGCTGTTCTGAGGGCTTTGTCATTCCCAGAGGAAATGTTCTCTTCACGGTGGAAAACACAGATCCAGAGTGT
TACTGGCTTACAAATTGGATTGAGACTATTCTTGTTCAGTCTGGTATCCAATCACAGTGGCCACAAATTCTAGA
GAGCAGAAGAAAATATTGGCCAAATATTTGTTAGAACTTCTGGTAACTTAGATGGTCTGGAATACAAGTTACAT
GATTTTGGCTACAGAGGAGTCTCTTCCCAAGAGACTGCTGGCATAGGAGCATCTGCTCACTTGGTTAACTTCAAA
GGAACAGATACAGTAGCAGGACTTGCTCTAATTAATAAATATTATGGAACGAAAGATCCTGTTCCAGGCTATTCT
GTTCCAGCAGCAGAACACAGTACCATAACAGCTTGGGGGAAAGACCATGAAAAAGATGCTTTTGAACATATTGTA
ACACAGTTTTTCATCAGTGCCTGTATCTGTGGTCAGCGATAGCTATGACATTTATAATGCGTGTGAGAAAATATGG
GGTGAAGATCTAAGACATTTAATAGTATCGAGAAGTACACAGGCACCACTAATAATCAGACCTGATTCTGGAAAC
CCTCTTGACACTGTGTTAAAGGTTTTGGAGATTTTAGGTAAGAAGTTTTCTGTTACTGAGAACTCAAAGGGTTAC
AAGTTGCTGCCACCTTATCTTAGAGTTATTCAAGGGGATGGAGTAGATATTAATACCTTACAAGAGATTGTAGAA
GGCATGAAACAAAAAATGTGGAGTATTGAAAATATTGCCTTCGGTCTGGTGGAGGTTTGCTACAGAAGTTGACA
AGAGATCTCTTGAATTGTTCCCTTCAAGTGTAGCTATGTTGTAACATAATGGCCTTGGGATTAACGTCTTCAAGGAC
CCAGTTGCTGATCCCAACAAAAGGTCCAAAAAGGGCCGATTATCTTTACATAGGACGCCAGCAGGGAATTTTGTT
ACACTGGAGGAAGGAAAAGGAGACCTTGAGGAATATGGTCAGGATCTTCTCCATACTGTCTTCAAGAATGGCAAG
GTGACAAAAGCTATTTCATTTGATGAAATAAGAAAAAATGCACAGCTGAATATTGAACTGGAAGCAGCACATCAT
TAGGCTTTATGACTGGGTGTGTGTTGTGTATGTAATACATAATGTTTATTGTACAGATGTGTGGGTTTTGTGT
TTTATGATACATTACAGCCAAATTTTGTGGTTTTATGGACATACTGCCCTTTCATTTTTTTTCTTTTCCAGTG
TTTAGGTGATCTCAAATTAGGAAATGCATTTAACCATGTAAAAGATGAGTGCTAAAGTAAGCTTTTTTAGGGCCCT
TTGCCAATAGGTAGTCATTCAATCTGGTATTGATCTTTTCACAAATAACAGAACTGAGAACTTTTATATATAAC
TGATGATCACATAAAACAGATTTGCATAAAATTACCATGATTGCTTTATGTTTATATTTAACTTGTATTTTTGT
CAAACAAGATTGTGTAAGATATATTTGAAGTTTCAGTGATTTAACAGTCTTTCCAACCTTTTCATGATTTTTATGA
GCACAGACTTTCAAGAAAATACTTGAAAATAAATTACATTGCCTTTTGTCCATTAATCAGCAAATAAAACATGGC
CTTAACAAAGTTGTTTGTGTTATTGTACAATTTGAAAATTATGTGCGGACATACCCTATAGAATTACTAACCTTA
CTGCCCCCTGTAGAATATGTATTAATCATTCTACATTAAAGAAAATAATGGTTCTTACTGGAATGTCTAGGCACT
GTACAGTTATTATATATCTTGGTTGTTGTATTGTACCAGTGAAATGCCAAATTTGAAAGGCCGTACTGCAATTT
TATATGTCAGAGATTGCCTGTGGCTCTAATATGCACCTCAAGATTTTAAGGAGATAATGTTTTTAGAGAGAATTT
CTGCTTCCACTATAGAATATATACATAAATGTAAATACTTACAAAAGTGG

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FIGURE 151

MNPAAEAEFNILLATDSYKVTHYKQYPPNTSKVSYFECREKKTENSKLRKVKEETVIFYGLQYILNKYLK GKVV
TKEKIQEAKDVYKEHFQDDVFNEKGWNYILEKYDGHLP I E I KAVPEGFVIPRGNVLEFTVENTDPECYWLTNWIET
ILVQSWYPITVATNSREQKILAKYLLETSGNLDGLEYKLHDFGYRGVSSQETAGIGASAHLVNFKGTDITVAGLA
LIKYYGTKDPVPGYSVPAAEHSTITAWGKDHEKDAFEHIVTQFSSVPVSVVSDSYDIYNACEKIWGEDLRHLIV
SRSTQAPLIIRPD SGNPLDTVLKVLEILGKKFPVTENSKGYKLLPPYLRVIQGDGVDINTLQEIVEGMKQKMWSI
ENIAFGSGGGLLQKLTRDLLNCSFKCSYVVTNGLGINVFKDPVADPNKRSKKGRLSLHRT PAGNFVTLEEGKGD L
EEYGQDLLHTVFKNGKVTKSYSFDEIRKNAQLNIELEAAHH

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FIGURE 152

CCGCAGCCATGACCCCGCAGCTTCTCCTGGCCCTTGTCTCTGGGCCAGCTGCCCCGCCCTGCAGTGGAAGGAAAG
GGCCCCCAGCAGCTCTGACACTGCCCCGGGTGCAATGCCGAGCCTCTCGGTACCCGATCGCCGTGGATTGCTCCT
GGACCCTGCCGCCTGCTCCAACTCCACCAGCCCCGTGTCTTCATTGCCACGTACAGGCTCGGCATGGCTGCCC
GGGGCCACAGCTGGCCCTGCCTGCAGCAGACGCCAACGTCCACCAGCTGCACCATCACGGATGTCCAGCTGTTCT
CCATGGCTCCCTACGTGCTCAATGTACCGCCGTCCACCCCTGGGGCTCCAGCAGCAGCTTCGTGCCTTTTCATAA
CAGAGCACATCATCAAGCCCGACCCTCCAGAAGGCGTGCGCCTAAGCCCCCTCGCTGAGCGCCAGCTACAGGTGC
AGTGGGAGCCTCCCGGGTCTGGCCCTTCCCAGAGATCTTCTCACTGAAGTACTGGATCCGTTACAAGCGTCAGG
GAGCTGCGCGCTTCCACCGGGTGGGGCCATTGAAGCCACGTCTTCATCCTCAGGGCTGTGCGGGCCCCGAGCCA
GGTACTACGTCCAAGTGGCGGCTCAGGACCTCACAGACTACGGGGAAGTGAAGTACTGGAGTCTCCCCGCCACTG
CCACAATGAGCCTGGGCAAGTAGCAAGGGCTTCCCGCTGCCTCCAGACAGCACCTGGGTCTCGCCACCCTAAGC
CCCGGGACACCTGTTGGAGGGCGGATGGGATCTGCCTAGCCTGGGCTGGAGTCCTTGCTTTGCTGCTGCTGAGCT
GCCGGGCAACCTCAGATGACCGACTTTTCCCTTTGAGCCTCAGTTTCTCTAGCTGAGAAATGGAGATGTACTACT
CTCTCCTTTACCTTTACCTTTACCACAGTGCAGGGCTGACTGAAGTGTCACTGTGAGATATTTTTTATTGTTTAA
TTAGAAAAGAATTGTTGTTGGGCTGGGCGCAGTGGATCGCACCTGTAATCCCAGTCACTGGGAAGCCGACGTGGG
AGGGTAGCTTGAGGCCAGGAGCTCGAAACCAGTCCGGGCCACACAGCAAGACCCCATCTCTAAAAAATTAATATA
AATATAAAATAAAAAAAAAAAAAA

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FIGURE 153

MTPQLLLALVLWASCPPCSGRKGPPAALTLPVQCRASRYPIAVDCSWTLPPAPNSTSPVSFIATYRLGMAARGH
SWPCLQQTPTSTSTCTITDVQLFSMAPYVLNVTAVHPWGSSSSSFVPFITEHIIKPDPPPEGVRLSPLAERQLQVQWE
PPGSWPFPEIFSLKYWIRYKRQGAARFHRVGPIEATSFILRAVRPRARYYVQVAAQDLTDYGELSDWSLPATATM
SLGK

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FIGURE 154

GCAGCCGCCACCGCCGCCGCCGCCGCCACCAGAGCCGCCCTGTCCGCGCCGCGCCTCGGCAGCCGGAACAGGGCC
GCCGTGCGGGGAGCCCCAACACACGGTCCACAGCTCATCATGATGGACTTGGAGCTGCCGCCGCCGGGACTCCCGT
CCCAGCAGGACATGGATTTGATTGACATACTTTGGAGGCAAGATATAGATCTTGGAGTAAGTCGAGAAGTATTTG
ACTTCAGTCAGCGACGGAAAGAGTATGAGCTGGAAAAACAGAAAAAATTGAAAAGGAAAGACAAGAACAACCTCC
AAAAGGAGCAAGAGAAAGCCTTTTTTCGCTCAGTTACAACCTAGATGAAGAGACAGGTGAATTTCTCCCAATTCAGC
CAGCCCAGCACATCCAGTCAGAAACAGTGGATCTGCCAACTACTCCCAGGTTGCCACATTCCCAAATCAGATG
CTTTGTACTTTGATGACTGCATGCAGCTTTTGGCGCAGACATTCCCGTTTGTAGATGACAATGAGGTTTCTTCGG
CTACGTTTCAGTCACCTGTTCTGATATTCCCGGTACATCGAGAGCCCAGTCTTCATTGCTACTAATCAGGCTC
AGTCACCTGAAACTTCTGTTGCTCAGGTAGCCCCTGTTGATTTAGACGGTATGCAACAGGACATTGAGCAAGTTT
GGGAGGAGCTATTATCCATTCTGAGTTACAGTGTCTTAATATTGAAAATGACAAGCTGGTTGAGACTACCATGG
TTCCAAGTCCAGAAGCCAACTGACAGAAGTTGACAATTATCATTTTTACTCATCTATACCCTCAATGGAAGAAAG
AAGTAGGTAAGTGTAGTCCACATTTTCTTAATGCTTTTGAGGATTCTTCAGCAGCATCCTCTCCACAGAAGACC
CCAACCAAGTTGACAGTGAACCTATTAAATTCAGATGCCACAGTCAACACAGATTTTGGTGATGAATTTTATTCTG
CTTTCATAGCTGAGCCAGTATCAGCAACAGCATGCCCTCACCTGCTACTTTAAGCCATTCACTCTCTGAACTTC
TAAATGGGCCCATTGATGTTTCTGATCTATCACTTTGCAAAGCTTTCAACCAAAACCACCCTGAAAGCACAGCAG
AATTCAATGATTCTGACTCCGGCATTTCATAAACACAAGTCCCAGTGTTGGCATCACCAGAACACTCAGTGGAAT
CTTCCAGCTATGGAGACACACTACTTGGCCTCAGTGATTCTGAAGTGGAAGAGCTAGATAGTGGCCCTGGAAGTG
TCAAACAGAATGGTCCATAAACACCAGTACATTCTTCTGGGGATATGGTACAACCCTTGTCAACCATCTCAGGGGC
AGAGCACTCACGTGCATGATGCCCAATGTGAGAACACACCAGAGAAAGAATTGCCTGTAAGTCCTGGTCATCGGA
AAACCCCATTCACAAAAGACAAACATTCAAGCCGCTTGGAGGCTCATCTCACAAGAGATGAACCTAGGGCAAAAG
CTCTCCATATCCCATTCCCTGTAGAAAAATCATTAACTCCCTGTTGTTGACTTCAACGAAATGATGTCCAAAG
AGCAGTTCAATGAAGCTCAACTTGCAATTAATTCGGGATATACGTAGGAGGGGTAAGAATAAAGTGGCTGCTCAGA
ATTGCAGAAAAAGAAAAGTGGAAAATATAGTAGAACTAGAGCAAGATTTAGATCATTGAAAGATGAAAAAGAAA
AATTGCTCAAAAGAAAAAGGAGAAAATGACAAAAGCCTTACCTACTGAAAAACAACCTCAGCACCTTATATCTCG
AAGTTTTTCAGCATGCTACGTGATGAAGATGAAAAACCTTATTCTCCTAGTGAATACTCCCTGCAGCAAACAAGAG
ATGGCAATGTTTTCTTGTTCCTTCCAAAAGTAAGAAGCCAGATGTTAAGAAAAACTAGATTTAGGAGGATTTGACCT
TTTCTGAGCTAGTTTTTTTTGTACTATTATACTAAAAGCTCCTACTGTGATGTGAAATGCTCATACTTTATAAGTA
ATTCTATGCAAAATCATAGCCAAAAGTATAGAAAATAATACGAAACTTTAAAAAGCATTGGAGTGTCAGTAT
GTTGAATCAGTAGTTTCACTTTAACTGTAAACAATTTCTTAGGACACCATTTGGGCTAGTTTCTGTGTAAGTGTA
AATACTACAAAAACTTATTTATACTGTTCTTATGTCAATTTGTATATTATATAGATTTATATGATGATATGACATC
TGGCTAAAAAGAAATTATTGCAAAACTAACCCTATGTACTTTTTTATAAATACTGTATGGACAAAAAATGGCAT
TTTTTATATTAAATTGTTTAGCTCTGGCAAAAAAATAAATTTAAGAGCTGGTACTAATAAAGGATTATTATGA
CTGTTAAAAA

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FIGURE 155

MMDLELPPPGGLPSQQDMDLIDILWRQDIDLGVSRVDFDSQRRKEYELEKQKKLEKERQEQLQKEQEKAFFAQLQ
LDEETGEFLPIQPAHQISETSGSANYSQVAHIPKSDALYFDDCMQLLAQTFFVDDNEVSSATFQSLVPDIPGH
IESPVFIATNQAQSPETSVAQVAPVDLDGMQQDIEQVWEELLSIPELQCLNIENDKLVETTMVPSPEAKLTEVDN
YHFYSSIPSMEKEVGNCSPHFLNAFEDSFSSILSTEDPNQLTVNSLNSDATVNTDFGDEFYSAFIAEPSISNSMP
SPATLSHSLSELLNGPIDVSDLSLCKAFNQNHPESTAENSDSGISLNTSPSVASPEHSVESSSYGDTLLGLSD
SEVEELDSAPGSVKQNGPKTPVHSSGDMVQPLSPSQGSTHVHDAQCENTPEKELPVSPGHRKTPFTKDKHSSRL
EAHLTRDELRAKALHIPFPVEKIINLPVVDFNEMMSKEQFNEAQLALIRDIRRRGKNKVAAQNCRRKLENIVEL
EQDLHLKDEKEKLLKEKGENDKSLHLLKKQLSTLYLEVFSMLRDEDGKPYSPSEYSLQQTRDGNVFLVPKSKKP
DVKKN

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FIGURE 156A

TGCCTTGACCAGGACTTGGGACTTTGCGAAAGGATCGCGGGGCCCCGGAGAGGTGTTGGAGAGCACAATGGCTGAA
CAAGTCCTTCCTCAGGCTTTGTATTTGAGCAATATGCGGAAAGCTGTGAAGATACGGGAGAGAACTCCAGAAGAC
ATTTTAAACCTACTAATGGGATCATTTCATCATTTTAAACCCTGCACCGATACACACTGGAAATGTTTCAGAACT
TGCCAGTTTTGTCTCAGTTTCGGGAGATCATCCACAAAGCCCTCATCGACAGAAACATCCAGGCCACCCTGGAA
AGCCAGAAGAACTCAACTGGTGTGAGAAAGTCCGGAAGCTTGTGGCGCTGAAAACGAACGGGTGACGGCAATTGC
CTCATGCATGCCACTTCTCAGTACATGTGGGGCGTTCAGGACACAGACTTGGTACTGAGGAAGGCGCTGTTTCAGC
ACGCTCAAGGAAACAGACACACGCAACTTTAAATTCCGCTGGCAACTGGAGTCTCTCAAATCTCAGGAATTTGTT
GAAACGGGGCTTTGCTATGATACTCGGAACTGGAAATGATGAATGGGACAATCTTATCAAATGGCTTCCACAGAC
ACACCCATGGCCCCGAAGTGGACTTCAGTACAACCTCACTGGAAGAAATACACATATTTGTCTTTGCAACATCCTC
AGAAGGCCAATCATTGTTCATTTAGACAAAATGCTAAGAAGTTTGGAAATCAGGTTCCAATTTGCCCCCTTTGAAA
GTGGGTGGAATTTACTTGCCTCTCCACTGGCCTGCCAGGAATGCTACAGATACCCCATTTGTTCTCGGCTATGAC
AGCCATCATTTTGTACCCTTGGTGACCCTGAAGGACAGTGGGCGCTGAAATCCGAGCTGTTCCACTTGTTAACAGA
GACCGGGGAAGATTTGAAGACTTAAAAGTTCACTTTTGACAGATCCTGAAAATGAGATGAAGGAGAAGCTCTTA
AAAGAGTACTTAATGGTGATAGAAATCCCCGTCCAAGGCTGGGACCATGGCACAACCTCATCTCATCAATGCCGCA
AAGTTGGATGAAGCTAACTTACCAAAGAAATCAATCTGGTAGATGATTACTTTGAACTTGTTTCAGCATGAGTAC
AAGAAATGGCAGGAAAACAGCGAGCAGGGGAGGAGAGAGGGGCACGCCAGAATCCCATGGAACCTTCCGTGCCC
CAGCTTTCTCTCATGGATGTAAATGTGAAACGCCCAACTGCCCTTCTTCATGTCTGTGAACACCCAGCCTTTA
TGCCATGAGTGCTCAGAGAGGCGGCAAAAGAATCAAACAAACTCCCAAAGCTGAACTCCAAGCGGGGCCCTGAG
GGGCTCCCTGGCATGGCGCTCGGGGCTCTCGGGGAGAAGCCTATGAGCCCTTGGCGTGGAACCTGAGGAGTCC
ACTGGGGGGCTCATTCGGCCCCACCGACAGCACCAGCCCTTTTCTGTTTCAGTGAGACCCTGCCATGAAGTGC
AGGAGCCCCGGCTGCCCTTTCACACTGAATGTGCAGCACAACGGATTTTGTGAACGTTGCCACAACGCCCGGCAA
CTTCAGCCAGCCACGCCCCAGACCACACAAGGCACTTGGATCCCGGGAAGTGCCAAGCCTGCCTCCAGGATGTT
ACCAGGACATTTAATGGGATCTGCAGTACTTGCTTCAAAGGACTACAGCAGAGGCCTCCTCCAGCCTCAGCACC
AGCCTCCCTCCTTCTGTCCAGCGTTCGAAGTCAGATCCCTCGCGGCTCGTCCGGAGCCCTCCCCGATTCT
TGCCACAGAGCTGGAACGACGCCCCGTGCTGGCTGCCTGTCTCAAGCTGCACGGACTCCTGGGGACAGGACGGGG
ACGAGCAAGTGCAGAAAAGCCGGCTGCGTGTATTTTGGGACTCCAGAAAACAAGGGCTTTTGCACACTGTGTTTC
ATCGAGTACAGAGAAAACAACATTTTGCTGCTGCCTCAGGGAAAGTCAGTCCACAGCGTCCAGGTTCCAGAAC
ACCATTCCGTGCCTGGGGAGGGAATGCGGCACCCTTGAAGCACCATGTTTGAAGGATACTGCCAGAAGTGTTTC
ATTGAAGCTCAGAATCAGAGATTTTCATGAGGCCAAAAGGACAGAAGAGCAACTGAGATCGAGCCAGCGCAGAGAT
GTGCCTCGAACCACACAAAGCACCTCAAGGCCCAAGTGCGCCCGGGCTCCTGCAAGAACATCCTGGCCTGCCGC
AGCGAGGAGCTCTGCATGGAGTGTGAGCATCCCAACCAGAGGATGGGCCCCGGGGCCACCGGGGTGAGCCTGCC
CCCGAAGACCCCCCAAGCAGCGTTGCCGGGGCCCCCGCTGTGATCATTTTGGCAATGCCAAGTGCAACGGCTAC
TGCAACGAATGCTTTTCAGTTCAAGCAGATGTATGGCTTAACCGGAAACAGGTGGGTACCTCCTGCAAGAAGTGGG
GCCTCGAGCTGTGAGTCATGTTGCTATCCTCTGAACCCCTCAGCTGCCACTGCAACAGTGGGCTTAAGGGTG
TCTGAGCAGGAGAGGAAAGATAAGCTCTTCGTGGTGCCACGATGCTCAGGTTTGGTAACCCGGGAGTGTTCCTCA
GGTGGCCTTAGAAAGCAAAGCTTGTAAGTGGCAAGGGATGATGTGAGATTCAGCCCAAGGTTCTCCTCTCCTAC
CAAGCAGGAGGCCAGGAACCTTCTTTGGACTTGGAAAGGTGTGCGGGGACTGGCCGAGGCCCTGCACCTGCGCAT
CAGGACTGCTTCATCGTCTTGGCTGAGAAAGGGAAAAGACACACAAGTCGCGTGGGTGGGAGAGCCAGGCCAT
TCCACCTCCCCCTCCCCCAGCATCTCTCAGAGATGTGAAGCCAGATCCTCATGGCAGCGAGGCCCTCTGCAAGAAG
CTCAAGGAAGCTCAGGGAAAATGGACGTATTAGAGAGTGTGTTGTAGTTTCATGGTTTTTCCCTACCTGCCCGGTT
CCTTTCTTGAGGACCCGGCAGAAATGCAGAACCATCCATGGACTGTGATTCTGAGGCTGCTGAGACTGAACATGT
TCACATTGACAGAAAAACAAGCTGCTCTTTATAATATGCACCTTTTAAAAAATTAGAATATTTTACTGGGAAGAC
GTGTAACCTTTTGGGTATTACTGTCTTTACTTCTAAAGAAGTTAGCTTGAAGTGGAGTAAAAGTGTGTACAT
ATATAATATACCCTTACATTATGTATGAGGGATTTTAAATTATATTGAAATGCTGCCCTAGAAGTACAATAG
GAAGGCTAAATAATAAACCTGTTTTCTGGTTGTTGTTGGGGCATGAGCTTGTGTATACACTGCTTGCTATAAAC
TCAACCAGCTGCCTTTTTTAAAGGGAGCTCTAGTCCTTTTTGTGTAATTCACCTTTATTTATTTTATTACAACTTC
AAGATTATTTAAGTGAAGATATTTCTTCAGCTCTGGGGAAAATGCCACAGTGTCTCCTGAGAGAACATCCTTGC
TTTGAGTCAGGCTGTGGGCAAGTTTCTGACCACAGGGAGTAAATTGGCCTCTTTGATACACTTTTGCTTGCTCC

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FIGURE 156B

CCAGGAAAGAAGGAATTGCATCCAAGGTATACATACATATTCATCGATGTTTCGTGCTTCTCCTTATGAAACTCC
AGCTATGTAATAAAAAAACTATACTCTGTGTTCTGT TAATGCCTCTGAGTGTCTACCTCCTTGGAGATGAGATAG
GGAAGGAGCAGGGATGAGACTGGCAATGGTCACAGGGAAAGATGTGGCCTTTTGTGATGGTTTTATTTCTGTTA
ACACTGTGTCTGGGGGGGCTGGGAAGTCCCCTGCATCCCATGGTACCCTGGTATTGGGACAGCAAAAGCCAGTA
ACCATGAGTATGAGGAAATCTCTTTCTGTTGCTGGCTTACAGTTTCTCTGTGTGCTTTGTGGTTGCTGTCATATT
TGCTCTAGAAGAAAAAAAAAAAAAGGAGGGGAAATGCATTTTCCCCAGAGATAAAGGCTGCCATTTTGGGGGTCTG
TACTTATGGCCTGAAAATATTTGTGATCCATAACTCTACACAGCCTTTACTCATACTATTAGGCACACTTTCCCC
TTAGAGCCCCCTAAGTTTTTCCCAGACGAATCTTTATAATTTCCCTTTCCAAAGATACCAATAAACTTCAGTGTT
TTCATCTAATTCTCTTAAAGTTGATATCTTAATATTTGTGTTGATCATTATTTCCATTCTTAATGTGAAAAAAA
GTAATTATTTATACTTATTATAAAAAAGTATTTGAAATTTGCACATTTAATTGTCCTAATAGAAAGCCACCTATT
CTTTGTTGGATTTCTTCAAGTTTTTCTAAATAAATGTAACCTTTTACAAGAGTCAACATTAAAAAATAAATTATT
T

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FIGURE 157

MAEQVLPQALYLSNMRKAVKIRERTPEDIFKPTNGIIHHFKTMHRYTLEMFRTCQFCPQFREIIHKALIDRNIQA
TLESQKKLNWCREVRLVALKTNGDGNCLMHATSQYMWGVQDIDLVLRKALFSTLKETDTRNFKFRWQLESLSKSQ
EFVETGLCYDTRNWNDEWDNLIKMASTDTPMARSGLOQNSLEEIHFVLCNILLRPIIIVISDKMLRSLESGSNFA
PLKVGGIYLPPLHWPQECYRYPIVLGYDSHHFVPLVTLKDSGPEIRAVPLVNRDRGRFEDLKVHFLTDPENEMKE
KLLKEYLMVIEIPVQGWHDGTTHLINAAKLDEANLPKEINLVDDYFELVQHEYKKWQENSEQGRREGHAQNPMEP
SVPQLSLMDVKCETPNCPFFMSVNTQPLCHECSERRQKNQNLPKLNSKPGPEGLPGMALGASRGEAYEPLAWNPF
EESTGGPHSAPPTAPSPFLFSETTAMKCRSPGCPFTLNVQHNGFCERCHNARQLHASHAPDHTRHLDPGKCQACL
QDVTRTFNGICSTCFKRTTAEASSSLSTSLPPSCHQRSKSDPSRLVRSPPHSCHRAGNDAPAGCLSQAARTPGD
RTGTSKCRKAGCVYFGTPENKGFCTLCFIEYRENKHFAAASGKVSPASRFQNTIPCLGRECGTLGSTMFEGYCQ
KCFIEAQNRQFHEAKRTEEQLRSSQRRDVPRTTQSTSRPKCARASCKNILACRSEELCMECQHPNQRMGPGAHRG
EPAPEDPPKQRCRAPACDHFGNAKCNNGYCNECFQFKQMYG

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FIGURE 158

GTAGTGGTGCCGAC¹TCCTGTTGTTT²GAGGCCGGT³TGGGGGTGTGCGATTGTGTGGGACGGTCTGGGGCAGCCC
AGCAGCGGCTGACCC⁴TCTGCCTGCGGGGAAGG⁵GAGTCGCCAGGCGGCCGT⁶CATGCGGGTGTCCGAGAGCCAGCTC
AAGAAAATGGTGTCCAAGTACAAATACAGAGACCTAACTGTACGTGAAACTGTCAATGTTATTACTCTATACAAA
GATCTCAAACCTGTTT⁷TGGATT⁸CATATGTTTT⁹TAACGATGGCAGTTCCAGGGAACTAATGAACCTCACTGGAACA
ATCCCTGTGCCTTATAGAGGTAATACATACAATAT¹⁰TCCAATATGCCTATGGCTACTGGACACATACCCATATAAT
CCCCCTATCTGTTTT¹¹GT¹²TAAAGCCTACTAGTTCAATGACTATTA¹³AAACAGGAAAGCATGTTGATGCAAATGGGAAG
ATATATCTTCCTTATCTACATGAATGGAAACACCCACAGTCAGACTTGT¹⁴TGGGGCTTATTCAGGTCATGATTGTG
GTATTTGGAGATGAACCTCCAGTCTTCTCTCGTCCTATTT¹⁵CGGCATCCTATCCGCCATACCAGGCAACGGGGCCA
CCAAATACTTCCTACATGCCAGGCATGCCAGGTGGAATCTCTCCATACCCATCCGGATACCCTCCCAATCCCAGT
GGTTACCCAGGCTGTCTT¹⁶ACCCACCTGGTGGTCCATATCCTGCCACAACAAGTTCTCAGTACCCTTCTCAGCCT
CCTGTGACCACTGTTGGTCCCAGTAGGGATGGCACAATCAGCGAGGACACCATCCGAGCCTCTCTCATCTCTGCG
GTCAGTGACAACTGAGATGGCGGATGAAGGAGGAAATGGATCGT¹⁷GCCCAGGCAGAGCTCAATGCCTTGAAACGA
ACAGAAGAAGACCTGAAAAAGGGTCACCAGAACTGGAAGAGATGGTTACCCGTTTAGATCAAGAAGTAGCCGAG
GTTGATAAAAAACATAGAACTTTT¹⁸GAAAAAGAAGGATGAAGAACTCAGTTCTGCTCTGGA¹⁹AAAAATGGAAATCAG
TCTGAAAACAATGATATCGATGAAGTTATCATTCCACAGCTCCCTTATACAAACAGATCCTGAATCTGTATGCA
GAAGAAAACGCTATTGAAGACACTATCTTTTACTTGGGAGAAGCCTTGAGAAGGGGCGTGATAGACCTGGATGTC
TTCCTGAAGCATGTACGTCTTCTGTCCCGTAAACAGTTCCAGCTGAGGGCACTAATGCA²⁰AAAAAGCAAGAAAGACT
GCCGGTCTCAGTGACCTCTAC²¹TGACTTCTCTGATACCAGCTGGAGGTTGAGCTCTTCTTAAAGTATTCTTCTCTT
CCTTTTATCAGTAGGTGCCCAGAATAAGTTATTGCAGTTTATCATTCAAGTGAAAAATATTTTGAATCAATAATA
TATTTTCTGTTTTCTTTTGGTAAAGACTGGCTTTTATTAATGCACTTTCTATCCTCTGTAAACTTTTTGTGCTGA
ATGTTGGGACTGCTAAATAAAATTTGTTGCATAAAAAAAAAAAAAAAAAAAAA

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FIGURE 159

MAVSESQLKKMVS KYRDLTVRET VNVITLYKDLKPVLDSYVFNDGSSRELMNLTGTIPV
PYRGNTYNIPICLW
LLDTYPYNPPICFVKPTSSMTIKTGKHVDANGKIYLPYLHEWKHPQSDLLGLIQVMIVVFGDEPPVFSRPISASY
PPYQATGPPNTSYMPGMPGGISPYPSGYPPNPSGYPGCPYPPGGPYPATTSSQYPSQPPVTTVGPSRDGTISED
TIRASLISAVSDKLRWRMKEEMDRAQAELNALKRTEEDLKKGHQKLEEMVTRLDQEA
EVDKNIELLKKKDEELSS
ALEKMENQSENNDIDEVIIPTAPLYKQILNLYAEENAIEDTIFYLGEALRRGVIDLDVFLKHVRLLSRKQFQLRA
LMQKARKTAGLS DLY

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FIGURE 160

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTG GTTTTTCTGTTTCCTTTTTTTTTTTTTTTTTTAACTT
CCTGCCTATCACACGCAGCCATCAGCCCACAAAGACATGACTACCAACGCGGGCCCTTGCACCCATACTGGCCT
CAGCACCTAAGACTGGACAAC TTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTCAGGTCGTGCTGCGGTTGTCCCATTTGGGGACTTGGCGGCGA
CTGTCCCTGTGCTGGTTTGCA GTGTGTGGGTTCA TTCACCTGGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG
GGTGACAACTTCACAGTGTGCATGGAAACCATCACAGCTTGCCTGTGGGGACCACTCAGCCTGTGGGTGGTGATC
GCCTTTCTCCGCCAGCATCCCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG
CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC
TTTGTCTTCATGAATGCCCTGTGGCTGGTGCTGCCTGGAGTCCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAACTTGAGGAGTGGTGGACCAGGCTCGA
ACACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCACAGTTTGGAGGGACAAAGCTA
ATTGATCTGTCACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTAAAATCAGGAAATAAAAG
ATCTTGACTCTAAAAAAAAAAAAA

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FIGURE 161

MTTNAGPLHPYWPQHRLDNFVPNDRPTWHILAGLFSVTGVLVTTWLLSGRAAVVPLGTWRRSLCWFVAVCGFI
HLVIEGWFLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVIAFLRQHPLRFIL
QLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKA
KSKKN

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FIGURE 162

TTGGAACACCTGGCGAGTCCTCGGTGTCGGTGGCCGGCAGTCATCTCGCGGCCGTTT CAGAATTATAAGGCTGTCT
GCAGAGATTTGAAAAATGGCAACAAATGAAAGTGTCAGCATCTTTAGTTCAGCATCCTTGGCTGTGGAATATGTA
GATTCACTTTTTACCTGAGAATCCTCTGCAAGAACCATTTAAAAATGCTTGGAACCTATATGTTGAATAATTATACA
AAGTTCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTTACCTGGATTT
TTATTTCAATTTATACCTTATATGAAAAAATACAAAATTCAAAAAGGATAAGCCAGAGACATGGGAAAACCAATGG
AAGTGTTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTATTATTTTACA
GAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGCTTTGGTTGT
GCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAGTATATTCAT
AAAGTTTCATCATGAGTTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACTCTAATTCCT
GGAACCTGGATTTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATTCTTCTTTGGGCATGGGTGACCATTTCGT
TTATTAGAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCCTTTAAATCTGATCCCTTTCTATGCT
GGTTCTCGGCATCATGATTTCCACCACATGAACCTTCATTGGAACTATGCTTCAACATTTACATGGTGGGATCGA
ATTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACTGAATATA
TCTCACGTAAACCTTCCTGAAAGATAAACGTTTTCTGAATTCAGAACTAGTAGCTAACATTGCTTCTGGAGAG
CAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTCCTAGTGGGA
ACTTTTTCTACTTTACCTACAAGTTCTATATATGTAGAAATGAATAAATATATATTTAAGTACAGTTTTTCATGAG
GAAGTTTTAAAAGACCATGTTCCCTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTATGGCTTTTCT
CCCAGTAAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCATTTTCAGAAAA
TTCTTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTTATTTTTTTTTTTGAGACAAAGCCACACTCTGTCTC
CTTGTCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCCAGTTCAAGCAATTCTTCTGCCTC
AGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCACGCCCAGCTAATTTTTGTATTTTGTAGAGATGGGG
TTTCTCGATGTTGGCCAGGCTGGTCTCAAACCTTCTGACCTCAAGTGATCTGCCACCTTGGCCTCCCAAAGTGCT
GGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTTAGAATTCACCTAAAGATCAAA
ATATCATGGATTGAAC

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FIGURE 163

MATNESVSIFSSASLAVEYVDSLLPENPLQEPFKNAWNYMLNNYTKFQIATWGSLIVHEALYFLFCLPGFLFQFI
PYMKKYKIQKDKPETWENQWKCFKVLLENHFCIQLPLICGTYTFTEYFNIPYDWERMPRWYFLLARCFGCAVIED
TWHYFLHRLHHKRIYKYIHKVHHEFQAPFGMEAEYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI
DVHSGYDIPLNPLNLIPFYAGSRHDFHMMNFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKKTE

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FIGURE 164

ACGCGGGCAGGCACACACGGAAGCACGCCTCCACTTAACTCGCGCCGCCGCGGCAGCTCGAGTCCACCAGCAGCG
CCGTCCGCTTGACCGAGATGCTGCGGGCCTGTCTAGTTATCGGGTGTGACCGCCGCCGCCAGAGTTGTCTCTGTG
GGAAGTTTGTCTCCGTCCATTGCGACCATGCCGAGATACTCTACTTCAGGCAGCTCTGGGTTGACTACTGGCA
AAATTGCTGGAGCTGGCCTTTTGTGTTGTTGGTGGAGGTATTGGTGGCACTATCCTATATGCCAAATGGGATTCCC
ATTTCGGGAAAGTGAGAGAAAACCATACCTTACTCAGACAAACTCTTCGAGATGGTTCTTGGTCTGCAGCTT
ATAATGTTCCATTGCCAAAGAAATCGATTTCAGTCGGGTCCACTAAAAATCTCTAGTGTATCAGAAGTAATGAAAG
AATCTAAACAGTCTGCCTCACAACCTCAAAAAACAAAAGGGAGATACTCCAGCTTCAGCAACAGCACCTACAGAAG
CGGCTCAAAATTATTTCTGCAGCAGGTGATACCCTGTCCGTCCAGCCCCTGCAGTTCAGCCTGAGGAATCTTTAA
AAACTGATCACCTGAAATTGGTGAAGGAAAACCCACACCTGCACCTTTCAGAAGAAGCATCCTCATCTTCTATAA
GGGAGCGACCACCTGAAGAAGTTGCAGCTCGCCTTGACAACAGGAAAAACAAGAACAAGTTAAAATTGAGTCTC
TAGCCAAGAGCTTAGAAGATGCTCTGAGGCAAACCTGCAAGTGTCACTCTGCAGGCTATTGCAGCTCAGAATGCTG
CGGTCCAGGCTGTCAATGCACACTCCAACATATTGAAAGCCGCCATGGACAATTCTGAGATTGCAGGCGAGAAGA
AATCTGCTCAGTGGCGCACAGTGGAGGGTGCATTGAAGGAACGCAGAAAGGCAGTAGATGAAGCTGCCGATGCCC
TTCTCAAAGCCAAAGAAGAGTTAGAGAAGATGAAAAGTGTGATTGAAAATGCAAAGAAAAAGAGGTTGCTGGGG
CCAAGCCTCATATAACTGCTGCAGAGGGTAAACTTCACAACATGATAGTTGATCTGGATAATGTGGTCAAAAAGG
TCCAAGCAGCTCAGTCTGAGGCTAAGGTTGTATCTCAGTATCATGAGCTGGTGGTCCAAGCTCGGGATGACTTTA
AACGAGAGCTGGACAGTATTACTCCAGAAGTCCTTCTGGATGGAAAGGAATGAGTGTTCAGACTTAGCTGACA
AGCTCTCTACTGATGATCTGAACTCCCTCATTGCTCATGCACATCGTCGTATTGATCAGCTGAACAGAGAGCTGG
CAGAACAGAAGGCCACCGAAAAGCAGCACATCACGTTAGCCTTGGAGAAAACAAAAGCTGGAAGAAAAGCGGGCAT
TTGACTCTGCAGTAGCAAAAGCATTAGAACATCACAGAAGTGAAATACAGGCTGAACAGGACAGAAAGATAGAAG
AAGTCAGAGATGCCATGGAAAATGAAATGAGAACCAGCTTCGCCGACAGGCAGCTGCCCACACTGATCACTTGC
GAGATGTCTTAGGGTACAAGAACAGGAATTGAAGTCTGAATTTGAGCAGAACCTGTCTGAGAACTCTCTGAAC
AAGAATTACAATTTTCGTCGTCTCAGTCAAGAGCAAGTTGACAACCTTTACTCTGGATATAAATACTGCCTATGCCA
GACTCAGAGGAATCGAACAGGCTGTTAGAGCCATGCAGTTGCTGAAGAGGAAGCCAGAAAAGCCCACCAACTCT
GGCTTTTCACTGGAGGCATTAAAGTACAGCATGAAGACCTCATCTGCAGAAAACACCTACTATCCCGCTGGGTAGTG
CAGTTGAGGCCATCAAAGCCAACTGTTCTGATAATGAATTCACCCAAGCTTTAACCAGCTATCCCTCCAGAGT
CCCTGACCCGTGGGGTGTACAGTGAAGAGACCCTTAGAGCCCGTTTTCTATGCTGTTCAAAAACCTGGCCCGAAGGG
TAGCAATGATTGATGAAACCAGAAATAGCTTGTACCAGTACTTCCTCTCCTACCTACAGTCCCTGCTCCTATTCC
CACCTCAGCAACTGAAGCCGCCCCAGAGCTCTGCCCTGAGGATATAAACACATTTAAATTACTGTCATATGCTT
CCTATTGCATTGAGCATGGTGATCTGGAGCTAGCAGCAAAGTTTGTCAATCAGCTGAAGGGGGAATCCAGACGAG
TGGCACAGGACTGGCTGAAGGAAGCCGAATGACCCTAGAAACGAAACAGATAGTGGAATCCTGACAGCATATG
CCAGCGCCGTAGGAATAGGAACCACTCAGGTGCAGCCAGAGTGAGGTTTAGGAAGATTTTCATAAAGTCATATTT
CATGTCAAAGGAAATCAGCAGTGATAGATGAAGGGTTTCGAGCGAGAGTCCCGGACTTGTCTAGAAATGAGCAGG
TTTACAAGTACTGTTCTAAATGTTAACACCTGTTGCATTTATATTCTTTCCATTTGCTATCATGTCAGTGAACGC
CAGGAGTGCTTTTCTTTGCAACTTGTGTAACATTTTCTGTTTTTTCAGGTTTTACTGATGAGGCTTGTGAGGCCAA
TCAAAATAATGTTTGTGATCTCTACTACTGTTGATTTTGCCCTCGGAGCAAACCTGAATAAAGCAACAAGATG

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FIGURE 165

MLRACQLSGVTAAQSCLCGKFVLRPLRPCRRYSTSGSSGLTTGKIAGAGLLFVGGGIGGTILYAKWDSHFRESV
EKTIPYSDKLFEMVLGPAAYNVPLPKKSIQSGPLKISSVSEVMKESKQSASQLQKQKGDTPASATAPTEAAQIIS
AAGDTLSVPAPAVQPEESLKT DHPEIGEGKPTPALSEEASSSSIRERPPEEVAARLAQOEKQE QVKIESLAKSLE
DALRQTASVTLQAIAAQNAAVQAVNAHSNILKAAMDNSEIAGEKKSAQWRTVEGALKERRKAVDEAADALLKAKE
ELEKMKSVIENAKKKEVAGAKPHITAAEGKLHNMIVDLDNVVKKVQAAQSEAKVVSQYHEL VVQARDDFKRELD S
ITPEVLPGWKGMVSD LADKLSTDDLNSLIAHAHRRIDQLNRELAEQKATEKQHITLAL EKQKLEEKRAFDSAVA
KALEHHRSEIQAEQDRKIEEVRDAMENEMRTQLRRQAAAHTDHLRDVLRVQE QELKSEFEQNLSEKLSEQELQFR
RLSQEQVDNFTLDINTAYARLRGIEQAVQSHAVAE EEARKAHQLWLSVEALKYSMTSSAETPTIPLGSAVEAIK
ANCS DNEFTQALTA AIPPESLTRGVYSEETLRARFYAVQKLARRVAMIDETRNSLYQYFLSYLQSLLLFP PQQLK
PPPELCPEDINTFKLLSYASYCIEHGDLELA AKFVNQLKGESRRVAQDWLKEARMTLET KQIVEILTAYASAVGI
GTTQVQPE

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FIGURE 166A

GTGGGGTGGGGTGGGGCTGGGGGCTTGTCGCCCTTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACCTTTCTGCT
GAGAAGGACATTTTGAAGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT
TGAATTAGATTACAGCGATGGGGACACAGAAGGTCACCCACAGCTCTGATATTTGCCATCACAGTTGCTACAATCG
GCTCTTTCCAATTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA
CTTTGACGGACAAGGGAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGCTCCTTGTCTGTGGCCATAT
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCACCGCTTTGGCAGGCGCAATTCATATGC
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC
TGATCCTGGGTCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA
TCTCGCCTACTGCCCTGCGGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTCGGTGGCCC
AGATCTTTGGTCTGGAATTCATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG
CTATCCTACAAAGTGCAGCCCTTCCATTTTGGCCTGAAAGTCCCAGATTTTGTCTCATTAAACAGAAAAGAAGAGG
AGAATGCTAAGCAGATCCTCCAGCGGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG
AGAGTGCAAGGATGTCACAAGAAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCAGCTACCGACAGCCCA
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGCGGGTGTGGTTAATACTATCTTCACTG
TAGTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGGAGGGATGGCTTTTT
GTTCCACGCTCATGACTGTTTCTTTGTTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTCCTGGTTTATTGTGGCCGAACCTCTTCAGCC
AGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTGGACCTCCAACCTCCTAGTCGGATTGCTCT
TCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTTATTATCTTACCAGGCTTCCTCATTACCTTCTTGGCTT
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGGAGATATCACACGGGCCCTTTGAAGGGCAGGCAC
ACGGTGCAGATAGATCTGGAAAGGACGGCGTCAATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA
ATGTCTAAGTCGTGCCTCCTTCCACCTCCCTCCCGGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCCTTCTCATCCCACGCACTCCATGAGCACC
CCAAGGCTGCGGTTTGTGGATCTTCAATGGCTTTTAAATTTTATTTCTGGACATCCTTCTGCTTAGGAGA
GACCGAGTGAACCTACCTTCATTTAGGAGGGATTGGCCGCTTGGCACATGACAACTTTGCCAGCTTTTCTCTCC
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCAACCTCAGACTTA
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCTTCTCACTTCCATACAGC
TCTACGTGGCAAATTAACCTGAGTTTTATTTATTTTATCCTCTGGTTTAAATTACATAATTTTTTTTTTTTACTT
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTGTGTACATAGGTATATATATGCCATGATGGAATATTTAT
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAATTTAGATTAGAGGGAGGTGTTTAAAGAGAGGT
TATAGAGTAGAAGATTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTTATTATTGG
AGGGTAAATGATGTGGTGCCTGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCTTCAGATGGAACTCTTTA
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCCCTTGGAGCTTTTTTCTTTAAGATAATAGT
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTT
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCCTCACTGGATGAAATAACTCC
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC
TAAATAAATTGGTTCTTGGTAGAGATTCAATATTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTT
TGTTGTATTTTAACTCATACCTTTAAAGGAATCCCCAAAGAATGTTTATAGCAAACCTTGGAAATTTGTAACCTCA
GCTCTGGGAGAGGATTTTTTCTGAGCGATTATTAATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC
GTATGTCTGTTACCATGTCACTGTGGTCTATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCACGTGTCATTTGCTC
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTTCCTACAGCCCCCTTTTTCATATGTTGCTCAG
TCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAGTGACAGTATTTTGGTT
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGTTTCGAGACCAGTCTGGCCAACATCG
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCTGTAATCCCAGCTACTTGG

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FIGURE 166B

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAATAAAAA
TTCTGAATGTACACG

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FIGURE 167

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM
IGSFSVGLFVNRFGRNSMLIVNLLAVTGCGFMGLCKVAKSVEMLILGRLVIGLFCGLCTGFVPMYIGEISPTAL
RGAFGTLNQLGIVVGILVAQIFGLEFILGSEELWPLLLGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG
VQEPYATIGAGVVNTIFTVVSFLFLVERAGRRTLHMLGLGGMAFCSLMTVSLLLKDNYNGMSFVCIGAILVFVA
FFEIGPGPIPWFIVAELFSQGPRPAAMAVAGCSNWTSNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV
PETRGRTFEDITRAFEGQAHGADRSGKDGVMMNNSIEPAKETTTNV

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FIGURE 168A

ACTCGGCCGGCAGCGGACCGCAGCCACCAGCCGCCCGCGCCCTCCAGCCCCGTCCGGGAGTCCCCGGCCCCGCTGC
GGTGCCGTGAGTACCTCCAACCCCTGCGCCCCGAGGAGGCCGAGGGGCTTAGCCACCAGGGCTCGGAAGTGGG
GGCCGAATCCGGTGCGAGACCCAAGGAGAGGGGAGCAGAGCCGGAGTTGGGGAGACTGTGGCTGAAAACCTGTGTC
TTCCTGGAGACTAGGCTGGCATTCTTGGCTTTGGGGTTGCTGAAAAGCCAGGAGTCAAAATGACTGAGCGCTTTGA
CTGCCACCATTGCAACGAATCTCTCTTTGGCAAGAGGTACATCCTGCGGGAGGAGAGCCCCCTACTGCGTGGTGTG
CTTTGAGACCTGTTCGCCAACACCTGCGAGGAGTGTGGGAAGCCCATCGGCTGTGACTGCAAGGTGCAACATTA
GAGGAAATCAATCAGCACTGGGACTGGCTGGAACAAAATCTCCTCCACACCTTGTCTGTCTTTGATAATAAAGAT
GACATTGCCAGTTTTGTCAAAGGGAAGGTAAAGCCGTGTGTCTGGGTGGCTGACGGATGACACAGCTGAGCCATT
CTCCTCATCAGGTGTGACTGTCTGTTGAAGCAGCGCACACTTCTCGGGGGCCTGTGCACCTCAGTCCCTCCTGCTT
CCTGTCCCTTGACCCCCCTGCCTTCCCATTTGCTGGCTCACTGAGCAGGGACTGTCTCTCTGTGTGTGAGGCTCT
GATAGCCGAGGAGACCAGCAGCAGGCTCGCCGAGCAGGAGGAGGAACCCGAGAAATCCGAGAAGCCCTGGTGAA
GTTGAGGCCAGGTTCAACTTCCCCGAGGCGGAGAAGCTGGTCACCTACTACTCCTGTCTGTGTTGGAAGGGCAG
GGTGCCCCGCCAGGGCTGGCTGTACCTCAGCATCAACCACCTCTGCTTCTACTCCTTCTTCTGGGCAAGGAACT
TAAACTTGTGGTTCCGTGGGTTGATATCCAGAAATTAGAAAGAACGTCCAATGTCTTTCTGACGGATAACCATCCG
AATCACCACGCAGAATAAGGAGCGTGACTTCTCCATGTTCTCTGAACCTGGATGAGGTGTTTAAAGTCA**ATG**GAGCA
GCTGGCCGACGTGACGCTGCGAAGGCTGCTGGATAATGAGGTCTTTGACCTCGACCCCGATCTGCAGGAGCCGAG
CCAGATCACCAAGAGGGACCTGGAAGCCAGAGCACAGAATGAGTTCTTCCGGGCTTTCTTCAGGTTGCCGAGGAA
GGAGAAGCTGCACGCGGTTGTGGACTGTTGCTCTGGACGCCGTTCACTGCTGTACACCGCGGGGCGGATGTT
CGCCTCTGACAGCTACATCTGCTTTGCCAGCAGAGAAGATGGCTGCTGTAAGATCATCCTGCCACTCAGAGAGGT
GGTGAGCATCGAGAAGATGGAGGACACGAGCCTGTGCCGCATCCCATCATTGTGAGTATCAGAAGCAAGGTGGC
CTTCCAGTTTATTGAGTCCGGGACCGAGACAGCCTGGTGGAGGCGCTGCTTGCGAGGTTGAAGCAGGTCCACGC
CAACCACCCGTGCACTACGACACCTCTGCGGATGATGACATGGCTTCACTCGTGTTCATTCAACAAGCATGTG
CAGTGACCACAGATTTGGGGATCTTGAATGATGTCTTCTCAAAATAGCGAGGAGAGTGAGAAAGAGAAGAGCCC
GCTGATGCACCCCGATGCCCTGGTCACCGCCTTCCAGCAGTCAGGCAGCCAGAGCCCTGACTCCCGAATGTCCAG
AGAACAGATAAAAAATAAGCCTGTGGAATGACCACTTTGTGGAATACGGCAGAACCCTGTGTATGTTTCGCACAGA
GAAGATTCGGAAGCTCGTAGCCATGGGCATCCCTGAATCTTTGCGAGGGAGACTCTGGCTTCTCTTCTCAGATGC
GGTGACGGATCTTGCTCACACCCCTGGTTACTACGGGAATCTGGTGGAGGAGTCCCTGGGGAAATGCTGCCTGGT
AACCGAGGAGATAGAACGAGACCTGCACCGCTCCCTGCCAGAGCACCCCGCCTTCCAGAACGAAACGGGAATTGC
TGCTTTGAGGAGAGTCTTGACGGCCTATGCCACCGGAACCCCAAGATTGGATACTGCCAGTCCATGAACATCCT
GACCTCCGTGCTGCTGCTGTACACCAAGGAGGAGGAAGCCTTCTGGCTGTTGGTTGCTGTGTGTGAGCGGATGCT
GCCCCATTACTTCAACCACCGAGTGATCGGGGCACAAGTTGACCAGTCTGTCTTCGAGGAGCTCATCAAGGGTCA
TCTCCAGAGCTGGCAGAGCACATGAACGACCTCTCAGCCCTGGCGTCTGTCTCTCTCTCGTGGTTCTTGACCCCT
GTTCTCTCAGCATCATGCCCTCTAGAGAGTGCGGTGAATGTGGTAGACTGCTTCTTCTATGATGGCATCAAAGCCAT
CTTCCAGCTGGGACTGGCTGTGCTTGAGGCCAATGCTGAGGACCTGTGCAGCAGCAAGGATGATGGCCAGGCCTT
GATGATCCTCAGCAGGTTTCTAGATCACATTAAGAATGAGGACAGCCCAGGGCCCCCAGTTGGCAGCCACCATGC
CTTTTTCTCCGACGACCAGGAGCCCTACCCTGTGACTGATATTTTCGGACCTGATCCGGGATTCCCTATGAGAAAT
TGGAGACCAGTCTGTGGAGCAGATCGAGCACCTACGTTACAAGCACAGGATCAGGGTCCCTCCAAGGCCACGAGGA
CACCACAAAGCAGAACGTGCTTCGAGTCGTTATCCCGGAAGTCTCAATTCTTCTGAAACCTAGAGGAGCTCTA
CGACTTATTCAAGAGAGAACATATGATGAGCTGTTACTGGGAGCAGCCCAGGCCCATGGCCTCACGCCACGACCC
CAGCCGGCCCTATGCTGAGCAGTACCGCATAGACGCCCGGCAGTTTGCACACCTGTTTCAGCTAGTCTCGCCCTG
GACCTGCGGGGGCCACACGGAGATCCTCGCCGAAAGGACGTTTCAAGGCTCTTGATGACAACATGGACCAGCTCAT
CGAGTTCAAAGCGTTTGTGAGCTGCCTCGATATTAATGTATAATGGAGAAATGAATGAGAAGATTAACTATTATA
CAGGCTTCATATCCCTCCAGCACTCACTGAAAATGACCGAGACAGCCAGTCGCCGTTGAGGAATCCTCTGTTGTC
AACATCGAGACCCCTGGTTTTTCGGGAAACCCAAATGGTGATGCAGTTGATTATCAGAAACAGCTGAAGCAGATGAT
TAAGGATTTAGCCAAAGAAAAAGATAAACTGAGAAAGAATTGCCCAAAATGAGCCAGAGAGAATTTATCCAGTT
CTGTAAACTCTGTACAGTATGTTCCATGAAGATCCAGAAGAAAATGATTTGTATCAAGCCATCGCCACAGTCAC
CACACTGCTGCTGCAGATCGGGGAGGTGGGGCAGCAGGAGCAGCTCTGGAAGCTGCTCCAGGAGTGTGGGGA
GGAGCTGCGGGCTTCACTCCTTCTCTGAGGACTCGGTTTTTGCAGACACTGGGAAGACGCCCCAGGACTCCCA

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FIGURE 168B

GGCACTTCCAGAGGCGGCAGAAAGGGACTGGACTGTCTCCCTTGAACATATTTTAGCTTCACTTCTGACTGAACA
GTCATTAGTCAACTTTTTTGAAAAGCCACTGGACATGAAATCCAACTTGAAAATGCCAAGATCAATCAGTACAA
TCTCAAACTTTTGAAATGAGCCACCAATCACAATCTGAACTTAAGCTGAGTAACTTGTAGCAAGACAGCAGCTG
CTATGCACACTGGAGTCCACCATAACCAAGCACGAACCAGACTGTTTCTTGGGGTCAGCCCTAAACCGAGATTTC
AGTCTACCTTACCAATGGGGCATCTGGCTAAACAACCTGACAACTGTGGCCAGGGGAACCGACACAACCCCTCAA
GCATTTCTATGTATTGAGAATTGTCAGTGCCCTAAGGTATCCATTGGTTCCCTTGATGCCAACTTACAATTTTTA
CCGGATTTGCTGAAATGGGCACTTCTGCTGTGATGCTAGTGTTGATTTTGCTCTCAGATGAACACAATGTCTCAT
ACTAACCAAGAAGCAAGAAAAGCCCCATGCTTTTCACTTTTCACTTGGAGTGACAATGGGAGAGGTCAGGAATCAA
GTTCACTTTCAAGATCTAAGGGAGTCCACTATCTGTGCAATTGTATTTGGCTTTTTTTTGCAGTGTTCATGCT
GGTAATTGAAACCATTTTAATATATTTGGTTGTATTCACTTTATATGTCCTTCCAAAAATGTTGTTGTGTACATA
CCATGCTTTCAATGTTGGCTTCCAAGTTTTTTAATAAGAACTTTTTGTTTTT

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FIGURE 169

MEQLADVTLRRLLDNEVFDLDPDLQEPSQITKRDLEARAQNEFFRAFFRLPRKEKLHAVVDCSLWTFPSRCHTAG
RMFASDSYICFASREDGCCCKIILPLREVVSIEKMEDTSLPHPIIVSIRSKVAFQFIELRDRDSLVEALLARLKQ
VHANHPVHYDTSADDDMASLVFHSTSMCSDHRFGDLEMMSSQNSEESEKEKSPLMHPDALVTAFQQSGSQSPDSR
MSREQIKISLWNDHFVEYGRIVCMFRTEKIRKLVAMGIPESLRGRLWLLFSDAVTDLASHPGYYGNLVEESLGKC
CLVTEEIERDLHRSLPEHPAFQNETGIAALRRVLTAYAHNRNPKIGYCQSMNILTSVLLLYTKEEEAFWLLVAVCE
RMLPDYFNHRVIGAQVDQSVFEELIKGHLPELAEHMNDLSALASVSLSWFTLFLSIMPLESAVNVDCCFFYDGI
KAIFQLGLAVLEANAEDLCSSKDDGQALMILSRFLDHKINEDSPGPPVGSHHAFFSDDQEPYPVTDISDLIRDSY
EKFGDQSVEQIEHLRYKHRIRVLQGHEDTTKQNVLRVVIPEVSILPEDLEELYDLFKREHMMSCYWEQPRPMASR
HDPSRPYAEQYRIDARQFAHLFQLVSPWTCGAHTEILAERTFRLLDDNMDQLIEFKAFVSCLDIMYNGEMNEKIK
LLYRLHIPALTENDRDSQSPLRNPLLSTSRPLVFGKPNGDAVDYQKQLKQMIKDLAKEKDKTEKELPKMSQREF
IQFCKTLYSMFHEDPEENDLYQAIATVTLLLLQIGEVGQRGSSSGSCSQECGEELRASAPSPEDSVFADTGKTPQ
DSQALPEAAERDWTVSLEHILASLLTEQSLVNFFEKPLDMKSKLENAKINQYNLKTFFEMSHQSQSELKLSNL

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FIGURE 170

CGGCTGCTGCTGCCACTGCTGTGCTGGGGGCCCCGGTCGCCAGGCCAAAAAGCCCTCCACGTTTGAGGGGAGTCATG

AGCCGTTTCCTGAATGTGTTAAGAAGTTGGCTGGTTATGGTGTCCATCATAGCCATGGGGAACACGCTGCAGAGC
TTCCGAGACCACACTTTTCTCTATGAAAAGCTCTACACTGGCAAGCCAAACCTTGTGAATGGCCTCCAAGCTCGG
ACCTTTGGGATCTGGACGCTGCTCTCATCAGTGATTGCTGCCTCTGTGCCATTGACATTCACAACAAGACGCTC
TATCACATCACACTCTGGACCTTCCTCCTTGCCCTGGGGCATTTCCTCTCTGAGTTGTTTGTCTATGGAAC TGCA
GCTCCACGATTGGCGTCTTGCCACCCCTGATGGTGGCAAGTTTCTCCATCCTGGGTATGCTGGTTCGGGCTCCGG
TATCTAGAAGTAGAACCAGTATCCAGACAGAAGAAGAGAACTTGAGGCCCAGCATTATCACCTCCAGGACTTTCCTC
GTTTTCCACCTTGGCCATCTTCTTCCTTCGTCGCTCTCTCCTCTTTAATTTCTTTTCTATTCCATCATCTGCCCTT
TTATTCACTTTTAGCCTCTTTTTTTTAAATTTTAAAGATATGCATACTGAAAAGTATATAACATGTACG
TACAATTTAAAGAATAATTTTAAAGTGAATACTACGTAACCTCCATCCAAGTCAAGAAATTGCCAGCTTCTCGGAA
GCCCACTGTGTCTCCTTCCCTACCTGCAACCTCTTCCAGGCTCCCTTTTCCAGCCTTCCCTTTTTTCCCTTTTA
TTTTCATGCCTTGATTGTGACTTGTGTGGTGGGAACATGTGAACATATGAACTTAAACCTGCTGCCACCCAGAGC
AGCTGTGACCAAGGGCTGCCTCAAGGGGTTGTCCACGCAGGTTGGGCTCCTCTCTGCTGCTGGACCCAAGACTCT
GAACCTTCCAAGGGACAGGCAGTTCTTCTAAGAAGGGCTCCCTGTGTGTGAGCAAGACCACAGCTCTCCTTCTA
TCTACAGATGCATGAGGGTTGGAAGAGTCTGGGCTGTTTTTAGACCTTCTGGTCAGCTGTATTTGTGTAACAACT
TTTGTAATAAATAGAAAAACCTCTGCTCTGATCAGTTCTTGTACTTTGACCTCTGCTAAGACAAGAGCATGGCT
GCCTCCTCTGAGCCCTAGGAGAATCACAGCTTTATGCCTGATTGAATACACCATAGTGAGTAGGACAGCTCATGA
CACAGGTCAGCCTGGCTGCCTCCGGCTCCTTACTGTCAATTTGCTCATTCTCTTGTATTCTTGAAGTCAAATCTT
CTTTTTTCTCACCTTCAAGAGTCTGCGTTCACAAC TAAACACTAAGTGCCCTTTCTTATTTCCCTCCTAAAGAAGA
AACAGATTCTTGAGAGAGCAGAGACAAAAAATAGAACTAGGCAGCATAGATGAAACAAC TG CATGACATGGGAA
GAAGACAAC TAAACCCCGAGGAGAATGCACTGGAATGGACAGTTGCTCTTAAACCTACCCAGAGGGCCTCCCCC
AGCTGGACCCCTCATACACAGTGTGTGTATCCAAAAGGCCATTGCTATTTTCAAGCAATATTTGTTGAGTACTTCTC
CATGCCGGACACTTGGGAAAGAGAAATGAACGACACAGGCAATGCCCTGCCCTGTGGGCCTTATATTATAGTCA
AGGTAACAGAATCAACAAGCCAACACAAAAATAAAGAACTTCAAATAGGGATAAGAACTCTAACAAACACAAGGT
ATTTTGGTCAAGAAGGAATGTGGGGTGGGCAGTGGGGAACGTAAC TTAATTAGATCATCAGAAAGTCTCCCTG
AGGAGATGGATTTTTTTTTTTGTTTTTTTAGAGACGGGGTTTCACTCTGTCAACCAGGCTGGGAATTGCAGTGGCAC
AATCCCTCACTGCTGCCTCAACTTCCTGGGCTCAAGTGACCTCCTGCATCAGCTTCCCAAGTAGCTGGGACTGC
AAGTGTGTACCACCACATCCAGCTAACATTTTTGGGGGTGGGAAGAGATGGGGTCTTACTATGTTGTCCAGGCTA
AGAGGTGGGATTTGAGCTGAGACTTGAATGCCAGGAGTTAAATGTCTTAAGATATGGAGCAGGCCGTTAGAAAG
GAGGGAGCAGCAACTGGAAGGTAGAATAGTCTTATTCAAGGAATAAGAACTATGTAATCACAGCATGGTGAAGAG
TTAGGAAGTGAAAAA

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FIGURE 171

MSRFLNVLRSWLVMVSI IAMGNTLQSFRDHTFLYEKLYTGKPNLVNGLQARTFGIWTLLSSVIRCLCAIDIHNKT
LYHITLWTFLLALGHFLSELFVYGTAAPTIGVLAPLMVASFSILGMLVGLRYLEVEPVSRQKKRN

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FIGURE 172

GAGGAGTGGATTACATATTCCAACAGTTGTTATTACATTGGTAAGGAAAGAAGAACTTGGGAAGAAAGAGTTTGC
TGGCCTGTGCTTCGAAGAACTCTGATCTGCTTTCTATAGATAATGAGGAAGAAATGGTATGTGTGGGGACTTCCC
AGTTGGCTGTAAGTTGCCATTTGAACATAACGAAATAGATCAGGAAGTGGAGACATATCTAAATTTTCTAGTTTT
ATAGAAGGCTTTTATCCACAAGAATCAAGATCTTCCCTCTCTGAGCAGGAATCCTTTGTGCATTGAAGACTTTAG
ATTCCCTCTCTGCGGTAGACGTGCACATTATAAGTATTTGATCGGGTGGATTCTGTGGTGGGAGGTCTCGACACAGCT
GGGAGATGAGTGAATTTTATAATTATAAATTGGATCTGAAGAAGAGTGATTTTTCAACACGATGGCAAAGCAAA
GATGTCCAGTAGTCAAAAGCAAATGTAGAGAAAATGCATCTCCATTTTTTTTTCTGCTGCTTCATCGCTGTAGCCA
TGGGAATCCGTTTCATTATTATGGTAGCAATATGGAGTGCTGTATTCTTAACTCATTATTCAACCAAGAAGTTC
AAATTCCTTGACCGAAAGTTACTGTGGCCCATGTCTAAAACTGGATATGTTACAAAATAACTGCTACCAAT
TTTTTGATGAGAGTAAAACTGGTATGAGAGCCAGGCTTCTTGTATGTCTCAAAATGCCAGCCTTCTGAAAGTAT
ACAGCAAAGAGGACCAGGATTTACTTAACTGGTGAAGTCATATCATTGGATGGGACTAGTACACATTCCAACAA
ATGGATCTTGGCAGTGGGAAGATGGCTCCATTCTCTACCCAACCTACTAACAATAATTGAAATGCAGAAGGGAG
ACTGTGCACTCTATGCCTCGAGCTTTAAAGGCTATATAGAAAAGTGTCAACTCCAAATACATACATCTGCATGC
AAAGGACTGTGTAAAGATGATCAACCATCTCAATAAAAGCCAGGAACAGAGAAGAGATTACACCAGCGGTAACAC
TGCCAACCGAGACTAAAGGAAACAAACAAAAACAGGACAAAATGACCAAAGACTGTCAGATTTCTTAGACTCCAC
AGGACCAAACCATAGAACAAATTTCACTGCAACATGCATGATTCTCCAAGACAAAAGAAGAGAGATCCTAAAGGC
AATTCAGATATCCCCAAGGCTGCCTCTCCCACCACAAGCCAGAGTGGATGGGCTGGGGGAGGGGTGCTGTTTTA
ATTTCTAAAGGTAGGACCAACACCCAGGGGATCAGTGAAGGAAGAGAAGGCCAGCAGATCAGTGAGAGTGCAACC
CCACCCTCCACAGGAAATTGCCTCATGGGCAGGGCCACAGCAGAGAGACACAGCATGGGCAGTGCCTTCCCTGCC
TGTGGGGGTCATGCTGCCACTTTTAATGGGTCCTCACCCAAACGGGGTCAGGGAGGTGGTGCTGCCCCAGTGGGC
CATGATTATCTTAAAGGCATTATTCTCCAGCCTTAAGATCTTAGGACGTTTCCTTTGCTATGATTTGTACTTGCT
TGAGTCCCATGACTGTTTCTCTTCTCTCTTTCTTCTTTTGGGAATAGTAATATCCATCCTATGTTTGTCCCACT
ATTGTATTTTGAAGCACATAACTTGTTTGGTTTTCACAGTTTACAGTTAAGAAGGAATTTTGCCTCTGAATAAA
TAGAATCTTGAGTCTCATGCAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 173

MGWIRGRRSRHSWEMSEFHNYNLDLKKSDFSTRWQKQRCPPVVKSKCRENASPFFFCCFIAMGIRFIIMVAIWS
AVFLNSLFNQEVQIPLTESYCGPCPKNWICYKNNCYQFFDESKNWYESQASCMSQNASLLKVYSKEDQDLLKLVK
SYHWMGLVHIPTNGSWQWEDGSILSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRV

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FIGURE 174A

GGGCCGGGGTGCGGAGGGAGTCCCTGAAACTTCTCCCAACAGCCCCAGGGCCAATCTTCCCTCAGCCCACTCCCC
TCTTCGCCAGCTCCCAGGTCCCCACTCCTGTACCGGGGGTGGGGTGGGGAGCCAGGCCCGTCTCCCGCTGGGACA
CACACAGGGGCGGGGAGCGGGGACGGGACCCCCGAGGCGGGGGGACGAACCGACAGACAGCGCTGGGCGCC
CGCCCCAGCGGGCAGGCAGGCAGGAGGAGGCGGAGGCGGGGTACGACGGGGAGCACTGGGTCTGGGGAGTTTCC
TCTCAACTATCGGGGGAGAACTCCCCGCAGCCGGAGGAAAGACCCAGACAGTGTCTTCTCCCGGGGGCGTGC
TCCCCCGCCCCGCTAGCGGCGGTGCGCGCCACCGGCGCCTCCACCTCTACCATCTCCTCTTTCTCCACCACCTC
GGGCCCCGGTGTCCCCGGCCAGCACTATGCCCATCTTACTGTTTCTGATAGACACGTCTGCCCTCTATGAACCAGC
GCAGCCATCTGGGCACCACCTACCTGGACACGGCCAAAGGCGCGGTAGAGACCTTCATGAAGCTCCGTGCCCGGG
ACCCTGCCAGCAGAGGAGACAGGTATATGCTGGTCACTTTTGAAGAGCCGCCCTATGCTATCAAGGCTGGATGGA
AAGAAAACCATGCAACGTTTATGAATGAATTGAAAAACCTTCAGGCTGAAGGACTTACGACTCTTGGCCAATCCC
TAAGGACAGCTTTTGATTTATTAAATTAAATAGATTAGTAAGTGGCATAGACAATATGGGCAGGGAAGAAACC
CTTTTTTCTTGGAGCCAGCAATAATTATCACAATTACTGATGGGAGCAAGTTGACTACCACCAGTGGAGTCCAGG
ATGAGCTTCATTTACCTCTTAATTCTCCTTTGCTGGAAGTGAATTGACCAAGGAACCTTTTCGTTGGGATCAGA
GACTCTTTGCATTAGTGTGCGGTTGCCTGGCACCATGTCAGTAGAATCAGAACAGTTGACAGGTGTGCCTTTAG
ATGACTCTGCAATCACACCAATGTGTGAAGTGACAGGCGGCCGTTTCATATTCTGTGTGTTCTCCAAGAATGCTTA
ATCAGTGTCTGGAGTCTTTGGTGCAGAAAGTACAAAGTGGGGTGGTAATAAACTTTGAAAAAGCAGGACCAGATC
CTTCCCTGTAGAAGATGGGCAGCCAGATATATCAAGGCCTTTTGGATCTCAGCCTTGGCATAGCTGTCACAAAC
TCATATATGTCAGACCAAATCCTAAACTGGGGTTCCTATAGGTCATTGGCCTGTTCCAGAGTCTTTTTGGCCAG
ATCAAAATTCGCCAACACTACCACCTCGTACATCTCATCTGTAGTGAAGTTTTCTGTACAGACTGTGAACCAA
TGGTTATTGATAAACTTCCTTTTGACAAATATGAGTTGGAACCTTCACCACTGACTCAATTTATCCTGGAAAGGA
AATCTCTCAAAACATGTTGGCAGGTGTACGTGAGCAATAGTGCAAAATACAGTGAACCTTGGTCATCCTTTTGGTT
ACTTGAAAGCCAGTACAGCACTGAACTGTGTCACTTATTTGTGATGCCTTACAATTATCCAGTCTTCTTCCCC
TCTTAGATGACTTGTTTTAAAGTGCATAAAGCAAAACCAACATTGAAGTGGAGACAGTCATTTGAAAGTTATTTGA
AGACAATGCCTCCCTACTATCTTGGGCCCTTGAAGAAAGCTGTTAGGATGATGGGAGCACCTAACCTAATAGCAG
ACAGTATGGAATATGGACTTAGTTACAGTGTCACTTCATACCTCAAAAACTGAGTCAACAGGCCAAAAATAGAAT
CTGATCGAGTCATTGGATCTGTAGGCAAAAAAGTAGTACAGGAGACTGGAATAAAAGTCCGGAGCCGATCACATG
GTTTATCAATGGCATATAGGAAAGATTTTCAACAACTCCTCCAGGGAATTTTCAAGGATGTCCCTCACAGACTGC
TAGACCTTAATATGAAGGAATACACTGGGTTCAGTTGCTTTGCTGAATAAGGATTTGAAGCCACAGACATTTA
GAAATGCTTATGACATACCAAGACGAAATCTTTTGGATCACTTAACAAGAATGAGATCTAATCTTTTGAAGAGCA
CTCGCAGATTTCTGAAAGGACAGGACGAAGATCAAGTGACAGTGTTCCTATAGCACAAATGGGGAACCTACCAGG
AATACCTCAAGCAAGTACCTTCTCCACTAAGAGAACTTGATCCTGATCAGCCACGAAGGTTGCATACATTTGGCA
ACCCCTTTAAGCTGGATAAGAAGGGTATGATGATAGATGAAGCAGATGAATTTGTGGCTGGACCTCAAAATAAAC
ATAAACGACCCGGAGAACCAATATGCAAGGGATCCCTAAAAGACGTCGGTGTATGTCTCCACTACTAAGAGGCA
GACAGCAGAATCCTGTTGTAAACAATCATATTGGGGGAAAAGGACCACCTGCACCTACAACCTCAAGCACAGCCAG
ATCTTATTAACCTCTTCTCTTTCATAAAATTCAGAAACCACTAATGATTGATAATACATGATGTGGTTGAAA
ATCATGTTGCAGACCAACTTTTCATCAGACATTACACCAAATGCTATGGATACGGAATTTTCAGCATCTTCTCCAG
CCAGTTTACTGGAACGGCCAACCAATCATATGGAGGCTCTTGGTCATGACCATTTAGGAACCAATGACCTCACTG
TTGGTGGATTTTTAGAAAATCATGAGGAGCCAAGAGATAAAGAACAATGTGCTGAAGAGAACATACCAGCATCTT
CACTCAACAAAGGAAAGAAATTGATGCATTGCAGAAGCCATGAAGAGGTCAATACTGAACTAAAAGCACAAATAA
TGAAAGAGATCCGAAAGCCAGGAAGAAAATATGAAAGAATCTTCACTTTACTGAAGCATGTGCAAGGCAGTTTAC
AAACAAGACTAATATTTTACAAAATGTCAATAAAGAAGCATCAAGGTTTAAAAACGAATGCTAATAGAACAAAC
TGGAGAACCTTCTGGATGAAATTCATCGAAGAGCCAATCAGATCAACCATATTAATAGCAATTAAGAGAAAATAG
AATGTGGCCACTTATTTCACTATCTTCTTCAAAATACAAAGTAAATAACAAGACTGTTGTGATCTTGCATTCAATT
TCTGACATGCATTGTTGGCTATTTGAAATACTAAAAGCAAACTACAGATCCTTTTTCCATCATTTTACAGTGAC
CTTTTCTTCATTTTGGTTTTATTTTGTAAATGTGAAAAGTATCACTCTAAAAAACATTTTTAATTTAACAACCTAA
AAATATTCCTCCAAATCTCTTGCTTGTCATTGACTCTTGGGTGTCATTTCCCTCAGGTTCTATTTTCTTAAACC
AACCTTTAAATTTGTCACCTCTGTTAAGGTTGAACCTTTGCCAAAAAAAAGAAGTTACTTTGTAATTTTGGGG
AAAAAGCACATACATTAACCTAGGTAATGTTTTGTATATACAGTTATTTTGGATATATTATTGTAAGTTGTAC

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FIGURE 174B

AAATGTATTTGAAGAATATTTAAGAAAAGCACTTTTGTTATTCCATCAATAAATGCTCTATTTTAAAAAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 175

MPILLFLIDTSASMNQRSHLGTTYLDTAKGAVETFMKLRARDPASRGDRYMLVTFEPPYAIKAGWKENHATFMN
ELKNLQAEGLTTLGQSLRTAFDLLNLNRLVTGIDNYQGRNPFFLEPAIIITITDGSKLTTTSGVQDELHLPLNS
PLPGSELTKEPFRWDQRLFALVLRPLPGTMSVESEQLTGVPLDDSAITPMCEVTGGRSYSVCSPRMLNQCLESLVQ
KVQSGVVINFEKAGPDPSFVEDGQPDISRPFQSQPWHSCHLIYVRPNPKTGVPIGHWPVPESFWPDQNSPTLPP
RTSHPVVKFSCTDCEPMVIDKLFPDKYELEPSPLTQFILERKSPQTCWQVYVSNSAKYSELGHPFGYLKASTALN
CVNLFVMPYNYPVLLPLDDLFKVHKAKPTLKWRQSFESYLKTMPPYYLGPLKKAVRMMGAPNLIADSMEYGLSY
SVISYLKKLSQQAKIESDRVIGSVGKKVVQETGIKVRSRSHGLSMAYRKDFQQLLQGISDVPHRLDLNMKEYT
GFQVALLNKDLKPQTFRNAYDIPRRNLLDHLTRMRSNLLKSTRRFLKQDEQVHSVPIAQMGNYYEYLKQVPSP
LRELDPDQPRRLHTFGNPFKLDKKGMMIDEADEFVAGPQNKHKRPGEPMQGIKRRRCMSPLLGRQQNPVVNN
HIGGKGPPAPTQAQPDLIKPLPLHKISETTNDISI IHDVVENHVADQLSSDITPNAMDTEFSASSPASLLERPTN
HMEALGHDHLGTNDLTVGGFLENHEEPRDKEQCAEENIPASSLNKGKKLMHCRSHEEVNTELKAQIMKEIRKPGR
KYERIFTLLKHVQGSQTRLIFLQNVIKEASRFKKRMLIEQLENFLDEIHRRANQINHINSN

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FIGURE 176

CCAAGCCCATGAGGGCCGCGCGCCCGGCCGCGGTGCTGACGAGACGGAGCTCCTGGCCCCGAGGAGGAGCAGA
GGATCAATGCGGTTCAAGAATCGATTCCAGCGGTTTCATGAACCATCGAGCTCCAGCCAATGGCCGCTACAAGCCA
ACTTGCTATGAACATGCTGCTAACTGTTACACACACGCATTTCCTCATTGTTCCGGCCATCGTGGGCAGTGCCCTC
CTCCATCGGCTGCTGATGACTGCTGGGAAAAGATAACAGCATGGATTATGGAATGGGACTCTGTGCCCTCTTC
ATCGCTTCTACAGTATTTACATTGTATCATGGAAAAAGAGCCACTTAAGGACAGCGGAGCATTGTTTTACATG
TGTGATAGAATGGTTATCTATTTCTTCATTGCTGCTTCTTATGCTCCATGGTTAAATCTTCGTGAAC TTGGACCC
CTGGCATCTCATATGCGTTGGTTTATCTGGCTCATGGCAGCTGGAGGAACCATTTATGTATTTCTCTACCATGAA
AAATATAAGGTGGTTGAACTCTTTTCTATCTCACAATGGGATTCTCTCCAGCCTTGGTGGTGACATCAATGAAC
AACACCGATGGACTTCAGGAAC TTGCCTGTGGGGGCTTAATTTATTGCTTGGGAGTTGTGTTCTTCAAGAGTGAT
GGCATCATTCCATTTGCCACGCCATCTGGCACCTGTTTGTGGCCACGGCAGCTGCAGTGCATTACTACGCCATT
TGGAAATACCTTTACCGAAGTCCTACGGACTTTATGCGGCATTTATGACCAATCTGTACTAATTCTCCAAACCAG
TATTATTTCAATTATGGCACTTGGGAGTGGGGTGAGAGCTAAACATTGCACAGGGCAAAGAAAAAAATAACTGC
ACTGACTTTATATCTTTTGAATATAATTACTGTGAAAGTATAAAGGCTGTGTTCTGGAATTTTCTGCCTCAGAGC
AAATAAATAAGGTAGTGAATTAATTATTCATTCCATTCCACTATCATGAAGGACTCTGAATAGACTTGGCCAACT
GATGTTTACAAACCAGACTTTTATATTTTAAATTTTACAGATTTTACTACATGATTTTCTAAATTACTATGTCAG
GTTGTAAAGTCAGTGCAATAACAAACCTTCCTTTTAAAGAAGAAAATTGTTTCTATTACTTTCCCATTCACTAG
GTAAAGAATCATGGACAGAACTTACACTACTTTTTACCATGTTTCATCTTGGCATAACATGGTTCTTTTTTAAAT
AGAACTTTAGTTTTTGTAAATTTTTAAAAAATATTTTCATTGATATGCATCTCTGCAGGTCCTCATTTCATGTT
GTAAATTTTTGGAGCAAGCAGTCAACATTCCACAAACGAACAAACATTATACCTCTCTGATAGTTTTATTAAGC
ATGGAGAAATTGCCAATTTTTAAAACTGCAGTTTCCAAACTTTTCTGCCAACCTCTTACTCTGAATTCAGTGC
TGCTTTGGGACATATACTTGACCTAGCTTGGTTTACCAGTGATGGAAAAGTATTTTGATATCATTAACCTTTTTCA
AAAGATCCAACTTTTTCTCTATGCCTTTGCCACAT TCTCTTCAGGGTCTCTTCCACAGCGGATAAATGTTTTTT
CTGTATTATGACAGTATTGTTGTGATGGCCATCTGCTGGAACTCCTGAAGAGCATTATGTATTACAGTGAGCAG
TTGTATTGCCTGTTTGGTGCCCAATGGTTAAGTCAATGTCACTTAGCTTTATATTGTCAGTTTGATATTTATTTT
AAATTGTGGAAGTAGATGCATAAATTCACATTTCTGCCTTTTCTTTGCATCTTCTCATATATTGTGTTTTTTTTT
TTTTTCTAGAAAAAATATTTAAAGCATTGTTTGACAGGTAGAACTCATGTATCTGTAGTCCATGAGTTATATC
CTGGCTCAGTGGAGTGATATTTATGTATTATTTTACTTTTCTCTCAGTGTCTTATATTAAGATTAACATGTTGT
TAATAGTTGCTTTGTTGATTAATCTCTCTTGTGTTGTTTAAATAAATGAAATAGGCTTGCTTTAGATCGGGTG
CTGATATTGCCTGTTTCCTAGTAATGGGCTGATCAAATGATCAGTGGAAATTTTGGTTTGATGATAACCTTATTA
ATTGAAATTTTTTACTGATGTGGCTTTAAAAGAGGTTTATTTTGTATATGTTTAGAACTCTCTGATTTTGATGAA
TTATATGGGAGTGAGAAACAGAAGAAGTGGTATTTGCTGGCGAGTTAAATAGGCAAGGTACCCAGTGATAACACC
AACCAACCCTCCTATCTGCATGATTCTGAACATCTGGATGCCTGTTGTTTTACTGTGTATATTTTATTTTAA
TATATTAAC TTTGTGGATTCA TTTAAGGTCTACTCAAAGTAACACTGTCCAAACCCTAATATGTATGTAAAAA
TTGTGCTGTATACTACAATAAAGTTGTTACTTGGATTTGTTCCAAAAA

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FIGURE 177

MRFKNRFQRFMNHRA PANGRYKPTCYEHAANCYTHAFLIVPAIVGSALLHRLSDDCWEKITAWIYGMGLCALFIA
STVFHIVSWKKSHLR TA EHC FHMCDRMVIYFFIAASYAPWLNLR ELGPLASHMRWFIWLMAAGGTIYVFLYHEKY
KVVELFFYLTMGFSPALVV TSMNNTDGLQELACGGLIYCLGVVFFKSDGIIPFAHAIWHLEFVATAAAVHY YAIWK
YLYRSPTDFMRHL

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FIGURE 178A

CGCCCCGCGCCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCCGCGCTCCAGCC
GAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCTCTGCGTTCAGGGGTAAGCGCGGCTCTCTGCC
CCCTTCCCGGCCACCACGAGGGGGCGCACGGGAGAACAGGGGCTTCGTGCTAGCTGCCGGGCATTGGGAGGGCTTG
ACGGGCCAGAGGTGACTGAGCGCAGACGGACCTCAGGAGCAAGGCTCTGTGTGGGGCTGTGACACTCCCCTCCC
CGCCCCACACACTTACCTCAATTCCCCTGTGGATTGGGAAACCGGGGGCTGGCCGGCTAAAGGAGGAACCTCAC
AGGGTGGGCTCAGCCTGGGTTCATTGGAGCAGATGGATGCTAACGGCACGGCGTCCCCAAGATGTGGCCAAC
AATCCCAGATATTCTTCTGGGCCCAGAGCACTCTACGCTAGCCTGCCTGCTGCCCTGCCTGCTAGTAACCTTGGA
CCAGCCCCCTGGCCCCCTCTGTCTGGTGTCCCCCTCTCTGCCCCAGGCTAGCAAGTAGGCTCTTCTTGGAAGCC
AGCCGCAGATCCTTGCTTTCTCAGGCTGGCCACCTGATGGTCTGCAACTCTCGGGAGGCCCTGGGTTTGGCCT
GGTCTGCTTGGGGTACCCCCACAATCGTCTCACAACCCTGTCTCAGCCCAGTCTGGGATCCCAATGTGAGAAGG
ACCTTGGCTCCTGCCTCTCATCTTCAAATTTCCCAGACTTGAGGTAAGGGACAGTGGAGAGGGGATGCTGATAAG
ACAGAGTCTTGACCTGAGCTGAGCATTCCCTGGCCATCCACTCTGTCTGAACCTCAGCAACCCCTTCAACCAAAG
GGTCTGATGCTGGCCATGGTGATGTGACAGGAGCTCAGGAAGCTCCAAGGAGAGAGGAAGAAGGTATAAATGGGT
GTTCTGCACTCAGGGAGGACTGGGTGGCTGTGCTTATCGCAACTGGCCTGGTGCCAAGTGAGGGAGGGTGAAGG
TGAGGCCAAGGAAGAGGACATGGAGGTGCTGGGAAGACTACTTCTCCCTTGCTGTCTCCAGCAAGTTCCTTCTCTC
CTGTCTGCATTCTGGGACTCCTGAATACCTGCCCCACCACTGCCTTCCACCCAGGAGCCTCCCCCTGCATTCCG
GGGTCCCATAGCCTCTTTCACTTTTTACCCTAGGTGAGCACCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTCA
GGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACACACATGTACCTAGAACACACCAGCCACTGTCCCC
ACCATGATGATGACACAGCCATGGACACACCCCTGCCAGGTACACACTCACCAGGAGCTTGTTGGTGATCAACAC
AGCTATTATACACCCAGCTACCACATCAGCCCCAAAGGTGCCACACCTACATGTGGGATCTGAGGACCGGCTA
AGCTATCTGGACGTGGCCACCCACAGAGTTCCAGCCTGACTGGCTAGCCACCAACCATGCTCCTGGGAAGGTAG
CTCTGGGCCCCAGCAAGCAGGTCACTCTCAAATTTGGCCTCCAGCTCTCCAAGAGGGATTTCGAAGATCCCACAG
TACAGCCAGGGTAGGTGTGAAAAGTTTTTGTGAGGCTGTGGTGTGCCAGAGTTGTGTGGCCCTTTCTCACTGTG
AGTGGTCATAGGGCCATGATTTGTTAGAACCTAGAGGGTCACCTATAACCTACACAGGAGTCAGGTCTGGCTCCT
GCCACCAGCTCCTGCCTGCGCCTTCTGCTCACAAGCAATACTGGCGCTGTTTGCCCATGCTGTCCTCTCTACC
TGGGGTCCCTTCCCCAGCTCCTTCTTTGGCCTGGAAGACACAGCTCAGGAGCAAGCAGACCCTGACTCCCCCG
TGACACCTGCAGTTTTATGACTTTGCATTATAATTACTCTTAGTGTCTCTTCCCCAGCCAGTCTGGTTCTCCTT
GAGGGCAAGGCCATGGTTTTATTATGGCGGTGTCTGAGGCCCAGCCAGGGACTAGACCCAGAACTAAGGCTTGG
AGATGTATTTTGAAGGAGTGAGGGAGGAGCAGCTGTCTTCTGGGGAAGTAGAGCCAGTCCCTGCTGCCCTCCC
AAGGAGGAAGCCCTAGTATCACCTGCTGGGTGGGCTTCCCTAGGAGAAAGCTGCTACTCAGATTTTGGTCGGC
TCAGTTCCCCCAACCCAGCCATCCAAGAATATGGTGTTACTGAACCTCTCAGTGCATGGGTGGTGAGGCCCTT
TATTGCGGAAAAGGGAACTGAAGCCCAGTGAAGAGCAAGCTTTGTACAAGATCGTAGAGCCTGGTAGGGCTGGC
TTGCCAGGGTGGGAAGTGGAGTGTGGATTAGGTCCCTGCCCTTGGTGGGAGCTCATACTGACAGGAGGTGAGACT
TGCCAGTGCCTTTAGAGGCCACTGTCCACCCAGACCCTCCACTGGGAGAAGCAGAGGCCAGGATAGGCTGACTT
GTATGGGTAGGGGATTATTTTCACTCTTAAGTCTTGGCCAGTGTGGACCTAGGTCCCTCTGAGAGACACTCCTAT
CCATGGGGAGGTAGCGTGTGACCTCAGGCAGCCTACCATAATCCTGGGGCTTCTCTGGAGGACCCACACAGATC
TATCATAGGATAAATCTACTTGTCTGTCTGCTAGATCTATCTCAACTAGGACCATTTCATCAGTGGGCCATTTAATCA
GCCCCTTACAGCCAGGAGGGCACAAACATGAAGCTACTTTGCACTGAATCCTATCAGTGTGGTGAGAACATTAGA
CATGCCTATAGGGAATGATCTGTGTTTTGGTTGATATAAAATAGAGAGCAATTAATTACTGTTTAGTAAATGCA
GGGCAGTGGAAAAGAATCTTTCAAAGAGGATCCCCACATGGAACAATCAAGGTGGCTTTTGTGATGACAAGTG
GGGAACGAGATACTGGACTAAGTGAAGCCATGGCTGGGTAGAGGGGAAGCTGAGGCTCAGTGTGAGATGGGCCAG
CCAGAGGTGATGAAGTGTCTGGGGCATAGGGGGTCTCTGGAGATGGGGGAAGCATGGGCTCCTCCACTCACTG
CTCATCCACTGCCTTCTAGACCTCGTCCTTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGGCCCGT
CCCTGGAAGTGGCCAAGCCAGTCACTGAGCCCTTGCTGCTGGGGCCTTCTCTGAGGAGGTGGCAGAGGGTACCC
CAGCCCAGACAGAGAGTGAAGCAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCT
ACCTTCGGGAATCTGGCTGGTATTGGGGTTCCATTACGGCCAGCGAGGCCCCGACAACACCTGCAGAAGATGCCAG
AAGGCAGTTTCTTAGTACGTGACAGCACGCCACCCAGCTACCTGTTACGCTGTGAGTGAAAACCACTCGTGGCC
CCACCAATGTACGCATTGAGTATGCCGACTCCAGCTTCCGTCTGGACTCCAAGTGTGTCCAGGCCACGCATCC

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FIGURE 178B

TGGCCTTTCGGATGTGGTCAGCCTTGTGCAGCAC TATGTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCC
CCGATCCTGCTCCACCCCGGCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTC
CACCAGCCACTGCTGTACACCTAAAACTGGTGCAGCCCTTTGTACGCAGAAGCAGTGCCCCGAGCCTGCAACACC
TGTGCCGCTTGTCAACAACGCTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACC
TCCGACAGTACCCCTTCCAGCTCTGACTGTACGGGGCAATCTGCCCACCCTCACCCAGTCGCACCCTGGAGGGGA
CATCAGCCCCAGCTGGACTTGGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCT
GGCCCAGGAAGAGCCAGCAAGAGCAAGGCATGGGAGAGGGGAGGTGTCACACAACCTTGGAGGTAAATGCCCCCAG
GCCGCATGTGGCTTCATTATACTGAGCCATGTGTGTCAGAGGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGG
GCTGGGCCCAGACCTCCACTCGCTTGCCTGCCCTGGCCACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTC
AATCCCCAGGGTCGGGTAGGACCCCTACTGGCAGCCAGCCTCTGTTTTCTGGGAGGATGACATGCAGAGGAACTGA
GATCGACAGTGACTAGTGACCCCTTGTGAGGGGTAAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATT
TATTTATTCTCCTTGGGGTTGGTGTGTCAGGGGCGAGCCAACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAGAG
ACCCCAACTCTGCCCTGGCTTCTCTGGTTCTTCCCTGTGGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGG
CAATCCTGGATGTCTGGTACTGACCCACCCGTCTGTGAATGTGTCCACTCTCTTCTGCCCCCAGCCATATTTGG
GGAGGATGGACAAC TACAATAGGTAAGAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCC
CTCACAGGACAGAGCTGTATCTGCATAGAGCTGGTCTCACTGTGGCGCAGGCCCCGGGGGGAGTGCCTGTGCTGT
CAGGAAGAGGGGGTGCTGGTTTGAGGGCCACCACTGCAGTTCTGCTAGGTCTGCTTCCTGCCCAGGAAGGTGCCT
GCACATGAGAGGAGAGAAATACACGTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGG
TCTTTTCTCTTCCACTGATTTTTCTGTAATGACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATA
AAATGATACCTTTCATGT

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FIGURE 179

MGPPLTAHPLPSRPRPLLAVERTGQRPLWAPSLELPKPVMQPLPAGAFLEEVAEGTPAQTESEPKVLDPEEDLLC
IAKTFSYLRESGWYWGSITASEARQHLQKMPEGTF LVRDSTHPSYLF TLSVKTTTRGPTNVRIEYADSSFR LDSNC
LSRPRILAFPDVVS LVQHYVASCTADTRSDSPDPAPT PALPMPKEDAPSDPALPAPP PATAVHLKLVQPFVRRSS
ARSLQHLCRLVINRLVADVDCLPLPRRMADYLRQYPFQL

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FIGURE 180

GAGTTGTAGCCGAGGTGGCGGCGCGGGGCGGGGCGGGCGGAGAGAGAAGGAAGGAGGTGGTTGTGCAGGATGGCG
ACGGCGGCCTACGAGCAGCTGAAGCTGCATATCACACCTGAAAAATTTTATGTGGAAGCTTGTGATGATGGAGCA
GATGACGTACTTACCATTGACCGTGTGTCCACAGAGGTTACCCTTGCAGTCAAGAAAGATGTTCTCCTTCAGCT
GTCACAAGACCAATATTTGGTATACTGGGCACAATCCATCTGGTGGCAGGTAATTATCTTATAGTCATTACCAAA
AAGATAAAAGTAGGTGAATTTTTTTCAGTCATGTAGTCTGGAAAGCAACAGATTTTGATGTCCTTTCTTATAAGAAG
ACAATGTTGCACTTAACATGATATTTCAGTTACAAGATAATAAAACCTTCCTAGCGATGCTAAACCATGTCTTGAAT
GTGGATGGATTTTACTTTTCAACAACATATGATTTGACCCATACTTTGCAGCGGCTATCCAACACTAGTCTTGAA
TTCCAAGAAATGAGTCTCTTGGAAAGGGCAGATCAGCGGTTTGTATGGAATGGTCATCTTCTAAGAGAACTTTCT
GCACAGCCAGAGGTTTCATCGGTTTTCCTTCCAGTGTACATGGCTTTATTACCATGCATTTCATGTTCTATTAAT
GGAAAAATACTTTGATTGGATTCTCATCTCGAGGAGGAGCTGTTTCAGAGCTGGTGTGCGCTATTATGTAAGAGGA
ATTGATTCCGAAGGCCATGCAGCTAACTTTGTAGAAACAGAAACAAATTGTGCACTACAATGGGAGCAAAGCTTCG
TTTGTACAGACTCGAGGATCAATACCTGTTTTCTGGTCCCAAAGACCAAACCTCAAGTACAAACCACTGCCACAG
ATCAGCAAAGTAGCAAATCACATGGACGGTTTTCCAAAGGCATTTTGATTCCCAAGTAATTATTTATGGAAAACAA
GTTATAATCAATCTGATTAACCAGAAGGGCTCGGAGAAGCCACTTGAGCAGACATTTGCAACAATGGTGTCTTCC
TTGGGAAGTGGAATGATGAGATACATTGCCTTTGACTTCCATAAGGAATGTAAAAATATGAGATGGGATCGACTA
AGTATTTTATTGGATCAGGTAGCAGAAATGCAAGATGAATTAAGTTATTTTCTAGTGGACTCTGCTGGCCAGGTG
GTGGCAAACCAGGAAGGCGTGTTCGAAGCAATTGCATGGATTGTCTAGATAGAACCAATGTGATCCAGAGTTTG
TTAGCTCGTCTGTTCACTTCAGGCCCACTTCAGAGACTAGGAGTTTTGCATGTGGGACAAAAGCTTGAAGAACAA
GATGAATTTGAGAAGATTTACAAAAATGCCTGGGCTGACAACGCAAATGCTTGTGCCAAGCAATATGCGGGAAC
GGTGCCTTGAAGACTGACTTTACCAGAAGTGGAAAGAGAACTCATTTGGGACTTATAATGGATGGCTGGAACCTCA
ATGATACGATATTATAAGAACAACCTTTCCGATGGATTTAGACAAGATTCCATAGACTTATTTCTTGGAACTAT
TCAGTGGATGAATTAGAATCTCATAGTCTTTAAGTGTTCGAAGGACTGGAAATTCCTGGCTTTGCCTATTATC
ATGGTTGTTGCCTTTTCAATGTGCATTATCTGTTTGCTTATGGCTGGTGCACACTTGGACAGAAACACTGGCCTAT
GTGCTCTTCTGGGGAGTTGCAAGCATTGGAACATTTTTATCATTCTTTACAATGGCAAAGATTTTGTGATGCT
CCCAGACTGGTCCAGAAAGAAAAGATAGACTGAATTTGTATTTGTGGAAAGCGGCTTGGCTTGGAAAGATTCCATT
GTGCAGAACTGGAGTCTTTACTGACCCGCTTTCCACATCAGCCCCAAGGTCTTTTAAATGCCTTTATCCAAAAGCA
CATCTTGTGCTCCATGCAGGATGATGACAGAATTGATCTGATGTTACTGCCTTGATGGTCTCTTTACTATTGGGA
CAGTTAGATTTATAATTTGAAGCTATTCTGTAATTAATAAATAACCTGAATTCAGCTTGCAAGTGAAGCTGAA
TCTGTTTCAATTGATTCTATTGATTGTCAATTTAATAGCTGTTGCAGAATAAGTAATATATTTTAAAAACCTAGC
TCCTTTTCAATTATTTAAAAACAGCAAAATTTATTTTGTAGCTCAGTTTCATTATTGTCAATTGTAAGCGGTCACTA
TTAGCAGGCATACCTTTCCACACATCTTTGGACTTTTCTTAAAAGTTTCAAGTAATAAGCTAACTGTGTTTATAAAA
TGTAAGTCTCTTACAGACATCAAGTAGTTTGATGAGACAGTCTGTGACTTCATGATAGGAAAGAGGAGGATGAGG
TCTGGGGTTCTTTAAAGTCTCTGGTGGGCTGCCTCATGACTTTAATCAGCTTGAAGTCCAGTGCACCAGCAGTT
TAGGTGTGATGAGAGAATTCAGATATACTTTATCTTTTAAAAAAGTGTAATAAAATCAAAGAATGTAAAGTCT
ATCTCTTACGCTAGAGGTCCAAAGCTGCCTCTGTTTTAAAGATTATCCCAATGTGGAAGATGCCCATGACTGGTC
AGCTACTTCCTCCTATACATTTTGGTTTCTTTGAGGGTCACTCATTGAGACACGCAGGCTCTGAGAGGGTCTTG
TTCTAGATTTTCAATTTGCACTTGGAGGGTAACAGCTGCTTTTTTACGCATGGTACTCTTGATGTTTTTCACTCTG
TCAAGGATTTTGTGGCTATCAATGAATGTGTCTAAACCTTAGTGCTTCCAGGTAGTTATAGTACTCCAAATCAA
GGACCAACTTAAACGTTAATTTTGTGCAAAAACAAACCTGAAAAATATGCTTCGGAAACTGTGCATAGTTCTAA
TTGTAAGTCAAGATTGTATATTCAAATGTAAATTAAGAGATTTAAATATTAGAACGGTATGTAAGGTAGTATAATT
ACCACTATTTTAAATAATTCAGTTAAACACTGCTGCAATATTTTCAGTGTTGTGCTTGAAAAATATGTACAGTTTTT
TTCCAATATTAATACCTTATGTTGTCTTAAATATTTCTAAAAGCGCTTTATTTTCAGCATTACCTTTTTTTCAT
CACTATCTTTTATAAAACATTAATATAAGTCGTTACTTTTAGAACTAAAGGAAATAATAGCTGGAAAACCTCT
GTAGTTTAAATCAGTCATTAAACTCACAATAGGGTAAGTAAATATAGCCACCTGTTAACATGTAAATAAGCATA
ATTTGTTCCAAAGATGGAATATTGAAACTTAGTTTCATGTCTGCTGTAAATATTATTTAAATGCTGCTGGGCATT
TCACTTAAAGAACTTAATGTCAACAGCTACAACAAAGACCAAATCTGAAGTCTAATGTGGCTGCTTTGTAGGGA
ATGGACTAATATCAGTGTGTAGATCTTAAAGGTATCAGTATTTTCAAGTCTGCGACGATTTTATTTCTAAATTC
ATGTAAGTGTATGTCCATAAGTGAAAATAAAATGTCATATTCTTTCT

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FIGURE 181

MATAAYEQKLHITPEKFYVEACDDGADDVLTIDRVSTEVTLAVKKDVPPSAVTRPIFGILGTIHLVAGNYLIVI
TKKIKVGEFFSHVVWKATDFDVLSYKKTMLHLTDIQLQDNKTFLAMLNHVLNVDGFYFSTTYDLTHTLQRLSNTS
PEFQEMSLERADQRFVWNGHLLRELSAQPEVHRFALPVLHGFI TMHSCSINGKYFDWILISRRSCFRAGVRYIV
RGIDSEGHAANFVETEIQIVHYNGSKASFVQTRGSI PVFWSQRPNLKYKPLPQISKVANHMDGFQRHFDSQVIIYG
KQVIINLINQKGSEKPLEQTFATMVSSLGSGMMRYIAFDFHKECKNMRWDRLSILLDQVAEMQDELSYFLVDSAG
QVVANQEGVFRSNCMDCLDRTNVIQSLARRSLQAQLQRLGVLHVGQKLEEQDEFEKIYKNAWADNANACAKQYA
GTGALKTDFTRTGKRTHLGLIMDGWNSMIRYYKNNFSDGFRQDSIDLFLGNYSVDELESHSPLSVPRDWKFLALP
IIMVVAFSMCIICLLMAGDTWTETLAYVLFWGVASIGTFFIILYNGKDFVDAPRLVQKEKID

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FIGURE 182

CAGTGCGGCGGATGTACGGATGATTAGTGGCTGGCAGGAAGCCCCGCCCTGCCCGCCCGCCAGTGTGAGTGGTGT
TGGCATCAGCTTGGGCAGGTGTGCGGGCTCAGGATGGGGCGGCCGTGTTGAGGAACCTGGACTCTCAGAGATGG
AATTCACCGTGTGCTAGGCTGGTCTGGAGCTCTTGATCTCAAGCGATCCTCCCTGCCCTCGGCCTCCCAACGT
GCTGGGATTATAGGCGTGAGCCACCGCTCCTGGCCAGGGTCTGTTCTAGTTGCAACAGTTCTTGAAACCCACT
CGAGAGGGCCACGCTCCATTACAGGCCACGCATCACAAGAGGCAACACCAGGAGCCAACATGAGCTCGGGGA
CTGAACTGCTGTGGCCCGGAGCAGCGCTGCTGGTGCTGTTGGGGGTGGCAGCCAGTCTGTGTGTGCGCTGCTCAC
GCCCAGGTGCAAAGAGGTGAGAGAAAATCTACCAGCAGAGAAGTCTGCGTGAGGACCAACAGAGCTTTACGGGGT
CCCGGACCTACTCCTTGGTCGGGCAGGCATGGCCAGGACCCCTGGCGGACATGGCACCACAAGGAAGGACAAGC
TGTTGCAATTCTACCCAGCCTGGAGGATCCAGCATCTTCCAGGTACCAGAACTTCAGCAAAGGAAGCAGACACG
GGTCGGAGGAAGCCTACATAGACCCCATTGCCATGGAGTATTACAAGTGGGGGCGGTTCTCGAAGCCCCCAGAAG
ATGATGATGCCAATTCTACGAGAATGTGCTCATTGCAAGCAGAAAACACAGAGACAGGTGCCAGCAGGAGG
GCATAGGTGGCCTCTGCAGAGGGGACCTCAGCCTGTCACTGGCCCTGAAGACTGGCCCCACTTCTGGTCTCTGTC
CCTCTGCCTCCCCGGAAGAAGATGAGGAATCTGAGGATTATCAGAACTCAGCATCCATCCATCAGTGGCGCGAGT
CCAGGAAGGTGATGGGGCAACTCCAGAGAGAAGCATCCCCTGGCCCCGTGGGAAGCCCAGACGAGGAGGACGGGG
AACCGGATTACGTGAATGGGGAGGTGGCAGCCACAGAAGCCTAGGGCAGACCAAGAAGAAAGGAGCCAAGGCAAA
GAGGGACCACTGTGCTCATGGACCCATCGCTGCCTTCCAAGGACCATTTCAGAGCTACTCAACTTTTAAGCCC
CTGCCATGGTTGCTCCTGGAAGGAGAACCAGCCACCCTGAGGACCACCTGGCCATGCGTGCACAGCCTGGGAAAA
GACAGTTACTACGGGAGCTGCAGGCCCGTCAACAAGCCCTCTCCCGACCCAGGCTTTGTGGGGCAGGCACCTGG
TACCAAGGGTAACCCGGCTCCTGGTATGGACGGATGCGCAGGATTTAGGATAAGCTGTCACCCAGTCCCCATAAC
AAAACCACTGTCCAACACTGGTATCTGTGTTCTTTTGTGCTATGAATTTGGATTCCTAATTGCTATTGTTGGTTG
CTGGGGTTTTAAATGATTGATAAGCTTGTACAGTTAACTTATAGAGGGGGAGCCATATTTAACATTCTGGATTTT
AGAGTAGAGATTTCTGTGTTGTCTCCTAGAAAGCATTACATGTAGTTTATTTAGCATCCTTGTGGGTGGGGCC
CTGGCTCTCTTCCCTTTGGTGGGACCTCCCTTTCTTTGGGCTTCAGTTCACTCAGGAAGAAATGAGGCTGTG
CCATCTTTATGTGCTTCCAGTGGAATGTCCTTGCTACAGACAATAGTGCATGAGAGTCTAGAGAAGTAGTGAC
CAGAACAGGGCAGAGTAGGTCCCTCCATGGCCCTGAATCCTCCTCTGCTCCAGGGCTGGCCTCTGCAGAGCTGA
TTAAACAGTGTTGTGACTGTCTCATGGGAAGAGCTGGGGCCAGAGGGACCTTGAGTCAGAAATGTTGCCAGAAA
AAGTATCTCCTCCAACCAAAACATCTCAATAAAACCATTTTAGTTGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 183

MSSGTELLWPGAALLVLLGVAASLCVRCSRPGAKRSEKIYQQRSLREDQQSFTGSRTYSLVGQAWPGPLADMAPT
RKDKLLQFYPSLEDPASSRYQNFSKGSRHGSEEAYIDPIAMEYYNWGRFSKPPEDDDANSYENVLICKQKTTETG
AQQEGIGGLCRGDLSSLALKTGPTSGLCPSASPEEDEESEDYQNSASIHQWRESRKVMGQLQREASPGPVGSPD
EEDGEPDYVNGEVAATEA

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FIGURE 184

AGTTGCAGTGGAAAGAAATGTGTCATCTGTGGTTTGGTTTTTAAAGTGGAAACTAGCTGCACATATCCTTTTT
TACTGCAGATTTACTTTAAGGCTCATATTCTCCAAGTCTATTCTGCTTTAAAAAGAAGACAAGAAAAAGAAGTGGT
TTATCAAAATCACGTTATAATCAGATTTTGACCAAGCATTTTGTAAGATTGCCAAGTATGCCACGGGACATGGAA
CACACAGGACATTACCTACATCTTGCCTTTCTGATGACAACAGTTTTTCTTTGTCTCCTGGAAACAAAAGCAAAC
TATACCCGTCTGTGGGCTAACAGTACTTCTTCCGTTGGGATTGAGTTATTCAAACAAGACAGGCAGAAACCAAAT
GAAACATTAAACACAAACCTATAACTCCTGAAGTAGATTATAAAGGTAATTCTACAAACATGCCTGAAACATCT
CACATCGTAGCTTTAACTTCTAAATCTGAACAGGAGCTTTATATACCTTCTGTGCTCAGCAACAGTCCTTCAACA
GTACAGAGCATTGAAAACACAAGCAAAAGTCAIGGTGAAATTTTCAAAAAGGATGTCTGTGCGGAAAAACAAC
AACATGGCTATGCTAATTTGCTTAATTATAATTGCAGTGCTTTTTCTTATCTGTACCTTTCTATTTCTATCAACT
GTGGTTTTGGCAAACAAAGTCTCTTCTCTCAGACGATCAAAACAAGTAGGCAAGCGTCAGCCTAGAAGCAATGGC
GATTTTCTGGCAAGCGGTCTATGGCCCCGCTGAATCAGACACTTGGAAGAAGCAAAACAGCTCACAGGACCCAAC
CTAGTGATGCAATCTACTGGAGTGCTCACAGCTACAAGGGAAAGAAAGATGAAGAAGGAAGTGAAGAACTTACT
AACAAACAGATAGGTTAGTGGAAGAAAAATGCAAAGTAGCAATGAGAAGGCTTATGGAGTAAAAATGAAGTCAGTT
GGTATTTAATCCCAAAGTGTGTTCTGATTATCTAAATTTGACATGGTAGACCTTGCAATTTAGAATCAAGCAG
GTGAGACAGGGAGAAGTATGCCTGCTTAATTATTTAACTGTGTACTTTTGTGTTTGACACTGAATATTTAAAAA
GCAAATAATAAAATAACTAAGCATTTGAGGAAAATTTTAAGGATAAATTGAGGAACTGATTAATAGAGATAGCA
AGGGATAATTAAATAAATATTCCTATGTAGCAACAGTGGTTAGATGATCTTTGTCTGAATGTAATAAACTTTG
AATAGTTTTAGTGTGTCCTTAAAGCCAAGTATATGCTTTAACATCAAATGGAAGTCAAATTCCTAATGCATAGAT
AGAGAGAGCTAACTGTGTAATTTAATGGTATCTTCCTTGCTGGATGTGGCAGAATCCACACCAGCTTATCAACC
AACACAGCTAATTTTAGAATAGGTCCTTTATCTTTCCATATGGCACACGTAAGAAAGTGTTCCTACTATTAAT
ATTAAATTAAAACCTTTACTTTTGTATAATAAATTAAACTCAGAATAAACCTGTGACCACGT

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FIGURE 185

MEHTGHYLHLAFLMTTVFSLSPGTKANYTRLWANSTSSWDSVIQNKTGRNQENININTNPITPEVDYKGNSTNMPE
TSHIVALTSKSEQELYIPSVVSNPSTVQSIENTSKSHGEIFKKDVCAENNNNMAMLICLIIIAVLFLICTFLFL
STVVLANKVSSLRRSKQVGKRQPRSNGLASGLWPAESDTWKRTKQLTGPNLVMQSTGVLTATRERKDEEGTEK
LTNKQIG

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FIGURE 186

GGTCGCTTGGTGGCTCCGICTGTTGTCCGTCCGCCCGCGGGTGCCATCATGGCGGACGCGGCCAGTCAGGTGCTC
CTGGGCTCCGGTCTCACCATCCTGTCCCAGCCGCTCATGTACGTGAAAGTGCTCATCCAGGTGGGATATGAGCCT
CTTCCTCCAACAATAGGACGAAATATTTTTGGGCGGCAAGTGTGTCAGCTTCCTGGTCTCTTTAGTTATGCTCAG
CACATTGCCAGTATCGATGGGAGGCGCGGGTTGTTACAGGCTTAACTCCAAGACTGTGTTCTGGGAGTCCTTGGA
ACTGTGGTCCATGGTAAAGTTTTACAGCATTACCAGGAGAGTGACAAGGGTGAGGAGTTAGGACCTGGAAATGTA
CAGAAAGAAGTCTCATCTTCCTTTGACCACGTTATCAAGGAGACAACCTCGAGAGATGATCGCTCGTTCTGCTGCT
ACCTTCATCACACATCCCTTCCATGTGATCACTCTGAGATCTATGGTACAGTTCATTGGCAGAGAATCCAAGTAC
TGTGGACTTTGTGATTCCATAATAACCATCTATCGGGAAGAGGGCATTCTAGGATTTTTCGCGGGTCTTGTTCCCT
CGCCTTCTAGGTGACATCCTTTCTTTGTGGCTGTGTAACCTCACTGGCCTACCTCGTCAATACCTATGCACTGGAC
AGTGGGGTTTCTACCATGAATGAAATGAAGAGTTATTCTCAAGCTGTCACAGGATTTTTTGCGAGTATGTTGACC
TATCCCTTTGTGCTTGCTCTCCAATCTTATGGCTGTCAACAACCTGTGGTCTTGCTGGTGGATGCCCTCCTTACTCC
CCAATATATACGTCTTGATAGACTGTTGGTGCATGCTACAAAAAGAGGGGAATATGAGCCGAGGAAATAGCTTA
TTTTTCCGGAAGGTCCCTTTGGGAAGACTTATTGTTGTGACCTGAAAAATGTTAATTTGAAGATGTGGGGCAGGG
ACAGTGACATTTCTGTAGTCCCAGATGCACAGAATATGGGAGAGAATGTTGATTTCTATACAGTGTGGCGCGCT
TTTTTAATAATCATTTAATCTTGGGAAAATTAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 187

MADAASQVLLGSGLTILSQPLMYVKVLIQVGYEPLPPTIGRNIFGRQVCQLPGLFSYAQHIASIDGRRGLFTGLT
PRLCSGVLGTVVHGKVLQHYQESDKGEELGPGNVQKEVSSSFDHVIKETTREMIARSAATLITHPFHVITLRSMV
QFIGRESKYCGLCDSIITIIYREEGILGFFAGLVPRLLDILSLWLCNSLAYLVNTYALDSGVSTMNEMKSYSQAV
TGFFASMLTYPFVLVSNLMAVNNCGLAGGCPPYSP IYTSWIDCWMLQKEGNMSRGNSLFFRKVPFGKTYCCDLK
MLI

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FIGURE 188

GACGTGAACGGTCGTTGCAGAGATTGCGGGCGGCTGAGACGCCGCTGCCTGGCACCTAGGAGCGCAGCGGAGCC
CCGACACCGCCCGCCGCC**ATG**GAGTCCGAGACCGAACCCGAGCCCGTCACGCTCCTGGTGAAGAGCCCCAACCC
AGCGCCACCGCGACTTGGAGCTGAGTGGCGACCGCGGCTGGAGTGTGGGCCACCTCAAGGCCACCTGAGCCGCG
TCTACCCCGAGCGTCCGCGTCCAGAGGACCAGAGGTTAATTTATTCTGGGAAGCTGTTGTTGGATCACCAATGTC
TCAGGGACTTGCTTCCAAAGCAGGAAAAACGGCATGTTTTGCATCTGGTGTGCAATGTGAAGAGTCCTTCAAAAA
TGCCAGAAATCAACGCCAAGGTGGCTGAATCCACAGAGGAGCCTGCTGGTTCTAATCGGGGACAGTATCCTGAGG
ATTCTCAAGTGATGGTTTAAGGCAAAGGGAAGTTCTTCGGAACCTTTCTTCCCCTGGATGGGAAAACATCTCAA
GGCCTGAAGCTGCCCAGCAGGCATTCCAAGGCCTGGGTCTGGTTTCTCCGGTTACACACCCTATGGGTGGCTTC
AGCTTTCCTGGTTCCAGCAGATATATGCACGACAGTACTACATGCAATATTTAGCAGCCACTGCTGCATCAGGGG
CTTTTGTTCACCACCAAGTGCACAAGAGATACCTGTGGTCTCTGCACCTGCTCCAGCCCTATTCAACAACAGT
TTCCAGCTGAAAACAGCCTGCCAATCAGAATGCTGCTCCTCAAGTGGTTGTTAATCCTGGAGCCAATCAAAATT
TGCGGATGAATGCACAAGGTGGCCCTATTGTGGAAGAAGATGATGAAATAAATCGAGATTGGTTGGATTGGACCT
ATTCAGCAGCTACATTTTCTGTTTTTCTCAGTATCCTCTACTTCTACTCCTCCCTGAGCAGATTCTCATGGTCA
TGGGGGCCACCGTTGTTATGTACCTGCATCACGTTGGGTGGTTTCCATTTAGACCGAGGCCGGTTCAGAACTTCC
CAAATGATGGTCTCCTCCTGACGTTGTAAATCAGGACCCCAACAATAACTTACAGGAAGGCACTGATCCTGAAA
CTGAAGACCCCAACCACCTCCCTCCAGACAGGGATGTACTAGATGGCGAGCAGACCAGCCCTCCTTTATGAGCA
CAGCATGGCTTGCTTCAAGACTTTCTTTGCCTCTCTTCTTCCAGAAGGCCCCCAGCCATCGCAAAC**TGA**TGGT
GTTTGTGCTGTAGCTGTTGGAGGCTTTGACAGGAATGGACTGGATCACCTGACTCCAGCTAGATTGCCTCTCCTG
GACATGGCAATGATGAGTTTTTAAAAAACAGTGTGGATGATGATATGCTTTTGTGAGCAAGCAAAAGCAGAAACG
TGAAGCCGTGATACAAATTGGTGAACAAAAATGCCAAGGCTTCTCATGTCTTTATTCTGAAGAGCTTTAATAT
ATACTCTATGTAGTTTAATAAGCACTGTACGTAGAAGGCCTTAGGTGTTGCATGTCTATGCTTGAGGAACTTTTT
CAAATGTGTGTGTCTGCATGTGTGTTTGTACATAGAAGTCATAGATGCAGAAGTGGTTCTGCTGGTACGATTTGA
TTCCTGTTGGAATGTTTAAATTACACTAAGTGTACTACTTTATATAATCAATGAAATTGCTAGACATGTTTTAGC
AGGACTTTTCTAGGAAAGACTTATGTATAATTGCTTTTTAAATGCAGTGCTTTACTTTAAACTAAGGGGAACCTT
TGCGGAGGTGAAAACCTTTGCTGGGTTTTCTGTTCAATAAAGTTTTACTATGAATGACCCTGAAAAAAAAAAAAA
AAAAAAAAA

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FIGURE 189

MESETEPEPVTL LVKSPNQRHRDLELSGDRGWSVGH LKAHLSRVYPERPRPEDQRLIYSGKLLLDHQCLRDLLPK
QEKRHV LHLVCNVKSPSKMPEINAKVAESTE EPAGSNRGQYPEDSSSDGLRQREVLRLNLSSPGWENISRPEAAQQ
AFQGLGPGFSGYTPYGWLQLSWFQQIYARQYYMQYLAATAASGAFVPPPSAQEIPVVSAPAPAPIHNQFPAENQP
ANQNAA PQVVNPGANQNLRMNAQGGPIVEEDDEINRDWLDWTYSAATFSVFLSILYFYSSLSRFLMVMGATVVM
YLHHVGWFFFRPRPVQNFNDGPPPDVVNQDPNNNLQEGTDPETEDPNHLPDRDVL DGEQTSPSFMSTAWLVFK
TFFASLLPEGPPAIAN

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FIGURE 190A

GGCGAGCTAAGCCG3AGGATGTGCAGCTGCGGCGGCGGCGCCGGCTACGAAGAGGACGGGGACAGGCGCCGTGCG
AACCGAGCCAGCCAGCCGAGGACGCGGGCAGGGCGGGACGGGAGCCCGGACTCGTCTGCCGCCGCCGTGCTCG
CCGTGCTGCCGGCCCCGCGTCCCCGCGCGGAGCGGGAGGAGCCGCCACCTCGCGCCCCGAGCCGCCGTAGC
GCGCGCCGGGCATGGTCCCCTCTTAAAGGCGCAGGCCGCGGCGGGCGGGGCGGGCGTGCGGAACAAAGCGCCGGC
GCGGGGCTGCGGGCGGCTCGGGGGCCGCGATGGGCGCGGCGGGCCCCGCGGCGGCGGCGGCGCTGCCCGGGCCGG
GCCTCGCGGCGCTAGGGCGGGCTGGCCTCCGCGGGCGGGGGCAGCGGGCTGAGGGCGCGCGGGGCGCTGCCCGGGC
GGCGGCGGCGGCGGCGGCGGCCCCGGCGGGCGGAGCGGCGCGGGCATGCGCGCGCGGCGGCGGCGCGCTGGCTCA
GCGTGCTGCTCGGGCTCGTCTGGGCTTCGTGCTGGCCTCGCGGCTCGTCTGCCCGGGCTTCCGAGCTGAAGC
GAGCGGGCCACGGCGCCGCGCCAGCCCCGAGGGCTGCCGGTCCGGGCAGGCGGCGGCTTCCCAGGCCGGCGGGG
CGCGCGGCGATGCGCGCGGGGCGCAGCTCTGGCCGCCGGCTCGGACCCAGATGGCGGCCCGCGCGACAGGAACT
TTCTCTTCGTGGGAGTCATGACCGCCAGAAATACCTGCAGACTCGGGCCGTGGCCGCTACAGAATGGTCCA
AGACAATTCCTGGGAAAGTTCAGTTCTTCTCAAGTGAGGGTCTGCACATCTGTACCAATTCAGTAGTGCCAC
TACGGGGTGTGGACGACTCCTACCCGCCCCAGAAGAAGTCTTTCATGATGCTCAAGTACATGCACGACCACTACT
TGGACAAGTATGAATGGTTTATGAGAGCAGATGATGACGTGTACATCAAAGGAGACCGTCTGGAGAATTCCTGA
GGAGTTTGAACAGCAGCGAGCCCTCTTTCTTGGGCAGACAGGCTGGGCACCACGGAAGAAATGGGAAAATGG
CCCTGGAGCCTGGTGAGAACTTCTGCATGGGGGGGCTGGCGTGATCATGAGCCGGGAGGTGCTTCGGAGAATGG
TGCCGCACATTGGCAAGTGTCTCCGGGAGATGTACACCACCCATGAGGACGTGGAGGTGGGAAGGTGTGTCCGGA
GGTTTGCAGGGGTGCAGTGTGTCTGGTCTTATGAGATGCAGCAGCTTTTTTATGAGAATTACGAGCAGAACAAA
AGGGGTACATTAGAGATCTCCATAACAGTAAAATTACCAAGCTATCACATTACACCCCAACAAAAACCCACCCT
ACCAGTACAGGCTCCACAGCTACATGCTGAGCCGAAGATATCCGAGCTCCGCCATCGCACAAATACAGCTGCACC
GCGAAATTGCTCTGATGAGCAAATACAGCAACACAGAAATTCATAAAGAGGACCTCCAGCTGGGAATCCCTCCCT
CCTTCATGAGGTTTCAGCCCCGCCAGCGAGAGGAGATTCTGGAATGGGAGTTTCTGACTGGAAAATACTTGTATT
CGGCAGTTGACGGCCAGCCCCCTCGAAGAGGAATGGACTCCGCCAGAGGGAAGCCTTGAGCGACATTGTATGC
AGGTTCATGGAGATGATCAATGCCAACGCCAAGACCAGAGGGCGCATCATTGACTTCAAAGAGATCCAGTACGGCT
ACCGCCGGGTGAACCCCATGTATGGGGCTGAGTACATCCTGGACCTGCTGCTTCTGTACAAAAGCACAAAGGGA
AGAAAATGACGGTCCCTGTGAGGAGGCACGCGTATTTACAGCAGACTTTCAGCAAAATCCAGTTTGTGGAGCATG
AGGAGCTGGATGCACAAGAGTTGGCCAAGAGAATCAATCAGGAATCTGGATCCTTGTCTTTCTCTCAAACCTCC
TGAAGAAGCTCGTCCCTTTTCAGCTCCCTGGGTGCAAGAGTGAGCACAAAGAACCACAAAGATAAAAGATAAACA
TACTGATTCTTTGTCTGGGCGTTTCGACATGTTTGTGAGATTTATGGGAACTTTGAGAAGACGTGTCTTATCC
CCAATCAGAACGTCAAGCTCGTGGTTCTGCTTTTCAATTCTGACTCCAACCCTGACAAGGCCAAACAAGTTGAAC
TGATGACAGATTACCGCATTAAGTACCCTAAAGCCGACATGCAGATTTTGCTGTGTCTGGAGAGTTTCAAGAG
CCCTGGCCCTGGAAGTAGGATCCTCCAGTTTAAACAATGAATCTTTGCTCTTCTCTGCGACGTCGACCTCGTCT
TTACTACAGAATTCCTTCAGCGATGTCGAGCAAATACAGTTCTGGGCCAACAAATATATTTCCAATCATCTTCA
GCCAGTATGACCCAAAGATTGTTTATAGTGGGAAAGTTCCAGTGACAACCATTTTGCTTTACTCAGAAAACGTG
GCTTCTGGAGAACTATGGGTTTGGCATCACGTGTATTTATAAGGGAGATCTTGTCCGAGTGGGTGGCTTTGATG
TTTCCATCCAAGGCTGGGGGCTGGAGGATGTGGACCTTTTCAACAAGGTTGTCCAGGCAGGTTTGAAGACGTTTA
GGAGCCAGGAAGTAGGAGTAGTCCACGTCCACCATCCTGTCTTTTGTGATCCCAATCTTGACCCCAACAGTACA
AAATGTGCTTGGGGTCCAAAGCATCGACCTATGGGTCCACACAGCAGCTGGCTGAGATGTGGCTGGAAAAAATG
ATCCAAGTTACAGTAAAAGCAGCAATAATAATGGCTCAGTGAGGACAGCCTTAATGTCCAGCTTTGCTGGAAAAGA
CGTTTTTAATTATCTAATTTATTTTCAAAAATTTTGTATGATCAGTTTTTGAAGTCCGTATACAAGGATATA
TTTTACAAGTGGTTTTCTTACATAGGACTCCTTTAAGATTGAGCTTTCTGAACAAGAAGGTGATCAGTGTGTC
TTTGAACACATCTTCTTGTGAACATTATGTAGCAGACCTGCTTAACTTTGACTTGAAATGTACCTGATGAACAA
AACTTTTTTAAAAAATGTTTTCTTTTGGAGCCCTTTGCTCCAGTCTTATGGCAGAAAACGTGAACATTCTGCA
AAGTATTATTGTAACAAAACACTGTAACCTCTGGTAAATGTTCTGTTGTGATTGTTAACATTCCACAGATTCTACC
TTTTGTGTTTTGTTTTTTTTTTTTTACAATTGTTTAAAGCCATTTTCATGTTCCAGTTGTAAGATAAGGAAATGT
GATAATAGCTGTTTCATCATTGTCTTCAGGAGAGCTTTCCAGAGTTGATCATTTCCCTCATGGTACTCTGTCTCA
GCATGGCCACGTAGGTTTTTTGTTTTGTTTTGTTTTGTTCTTTTTTTGAGACGGAGTCTCACTCTGTTACCCAGGC
TGGAATGCAGTGGCGCAATCTTGCTCACTTTAACCTCCACTTCCCTGGTTCAAGCAATTCCTGCTTTGCT

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FIGURE 190B

CCCGAGTAGCTGGGATTACAGGCACACACCACCACGCCAGCTAGTTTTTTTGTATTTTATAGTAGAGACGGGGTT
TCACCATGCAAGCCCAGCTGGCCACGTAGGTTTTAAAGCAAGGGGCGTGAAGAAGGCACAGTGAGGTATGTGGCT
GTTCTCGTGGTAGTTCATTTCGGCCTAAATAGACCTGGCATTAAATTTCAAGAAGGATTTGGCATTCTCTCTTCTT
GACCCTTCTCTTTAAAGGGTAAAATATTAATGTTTAGAATGACAAAGATGAATTATTACAATAAATCTGATGTAC
ACAGACTGAAACACACACACATACACCCTAATCAAAACGTTGGGGGAAAATGTATTTGGTTTTGTTTCCTTTCATC
CTGTCTGTGTTATGTGGGTGGAGATGGTTTTTCATTCTTTCATTACTGTTTTGTTTTATCCTTTGTATCTGAAATA
CCTTTAATTTATTTAATATCTGTTGTTTCAGAGCTCTGCCATTTCTTGAGTACCTGTTAGTTAGTATTATTTATGT
GTATCGGGAGTGTGTTTAGTCTGTTTTATTTGCAGTAAACCGATCTCCAAAGATTTCTTTTGGAAACGCTTTTT
CCCCTCCTTAATTTTTATATTCCTTACTGTTTTACTAAATATTAAGTGTTCTTTGACAATTTTGGTGCTCATGTG
TTTTGGGGACAAAAGTGAAATGAATCTGTCATTATACCAGAAAAGTTAAATTCAGATCAAATGTGCCTTAATAA
ATTTGTTTTCAATTTAGATTTCAAACAGTGATAGACTTGCCATTTTAATACACGTCATTGGAGGGCTGCGTATTTG
TAAATAGCCTGATGCTCATTGGAATAAACCAGTGAACAATATTTTCTATTGTACTTTTCAGAACCATTTT
GTCTCATTATTCCTGTTTTAGCTGAAGAATTGTATTACATTTGGAGAGTAAAAAAGTTAAACACG

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FIGURE 191

MAARGRRAWLSVLLGLVLGFVLASRLVLPRASELKRAGPRRRASPEGCRSGQAAASQAGGARGDARGAQLWPPGS
DPDGGPRDRNFLVGVMTAQKYLQTRAVAAAYRTWSKTIPGKVQFFSSEGS DTSVP IPVVPLRGVDDSYPPQKKSF
MMLKYMHDHYLDKYEFMRADDDVYIKGDRLENFLRSLNSSEPLFLGQTGLGTTEEMGKLALPGENFCMGGPGV
IMSREVLRRMVPHIGKCLREMYTTTHEDVEVGRCVRRFAGVQCVWSYEMQQLFYENYEQNKKGYIRDLHNSKIHQA
ITLHPNKNPPYQYRLHSYMLSRKISELRHRTIQLHREIVLMSKYSNTEIHKEDLQLGIPPSFMRFPQPRQREEILE
WEFLTIGKYLYSAVDGQPPRRGMDSAQREALDDIVMQVMEMINANAKTRGRIIDFKEIQYGYRRVNP MYGAEYILD
LLLLYKKHKGKKMTVPVRRHAYLQQTFSKIQFVEHEELDAQELAKRINQESGSLSFLSNSLKKLVFPQLPGSKSE
HKEPKDKKINILIPLSGRFDMFVRFMGNFEKTCLIPNQNVKLVLVLLFNSDSNPDKAKQVELMTDYRIKYPKADMQ
ILPVSGEFSRALALEVGSSQFNNESSLFFCDVDLVFTTEFLQRCRANTVLGQQIYFPIIFSQYDPKIVYSGKVPS
DNHFAFTQKTGFWRNYGFGITCIYKGD LVRVGGFDVSIQGWGLEDVDLFNKVVQAGLKTFRSQEVGVVHVHHPVF
CDPNLDPKQYKMCLGSKASTYGSTQQLAEMWLEKNDPSYSKSSNNNGSVRTA

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FIGURE 192A

GGTGTGGACGTTGTCTAAATTTCCGGTAGCCATGGCACAAGAATATAAGAAAGCATGGGATTATGGCAACCACAGA
ATCTCAGTAGTACAAGTTCCATTTCAGTTTTTTCTGAAAGAAAGCCCTCTGTTAAAGTGAAGCAAAGAACTGTTG
TGGATTATAACGTTTAGAAGTTCCAATTTTTCTAGTGCTTTACAAATAAAGCATCATTTAACTTTTAAATGAAAA
AGATTAAGATCTCATGCAACTGTTGTATTTTTCTGGAAGCCATTCTCCAAAAGGGAAGTGCACATTTAAAACACAG
ATATGATGGTCCTTGCTGCAGGGATTAAAGTCTACTTGCTTTTACATCATGACCAGCTTGAAACGGTCACAGACA
GAAAGGCCTCTTGCCACTGACAGGGCCTCTGTTGTGGCACAGACGGCACCCCAAAGTCCACACTGATGATTTTC
TACATGCGGCGCTTCCGGTCCCAAAATGGCAGCTTAGGATCATCAGTTATGGCTCCTGTAGGACCCCCCGAAGT
GAAGGTTCTCACCATATAACCTCAACCCCCGAGTCCCAAAAATGGGGTAAGGGCAAGGATTGCAGATTGGCCC
CCAAGAAAGGAAAACATAAAAGAATCTAGCCGTTCAAGCCAGGAAATAGAAACCTCAAGTTGCCTTGATAGCCTG
TCCTCCAAAAGCAGTCTGTGAGTCAGGGAAGTTCGTTAGCCTCAATTCCAATGACTCAGCCATGCTGAAAAGC
ATACAGAACACGCTGAAAAACAAGACAAGACCGTCGGAGAACATGGACTCCAGATTTCTCATGCCTGAAGCCTAC
CCCAGCTCCCCAGAAAAGCTCTTCGCAGAATACGCCAGCGAAGCAACAGTGATATCACCATAAGTGAACCTTGAT
GTGGATAGCTTTGATGAATGTATCTCACCTACATAACAAGACTGGACCATCACTGCACAGGGAATATGGTAGCACA
TCTTCAATTGATAAACAGGGAACATCTGGAGAAAGCTTTTTTGATTGTAAAGGGCTACAAAGATGACAAATCT
GATCGAGGTCCAACCTCCAACCAAGCTCAGTGACTTTCTCATTACTGGTGGTGGCAAGGGTTCTGGTTTTCTTTG
GATGTAATAGACGGGCCTATCTCACAGAGAGAGAACCTCAGGCTTTTAAAGGAAAGGGAAAAACCACTCAAGCGA
CGTTCAAAATCTGAAACTGGAGACTCCTCTATTTTTTCGTAAATTGCGCAATGCCAAAGGTGAAGAACTTGGGAAG
TCATCAGATCTTGAAGATAACCGATCAGAAGACTCTGTCAGGCCCTGGACATGTCCAAAGTGCTTTGCCACTAT
GATGTCCAGAGTATATTATTTGATTTGAATGAGGCAATTATGAACAGGCACAATGTTATTAAGAGGAGAAACACC
ACCACTGGAGCTTCCGCAGCTGCCGTGGCATCCTTGGTCTCTGGACCTCTGTCTCATTAGCCAGTTTTAGCTCC
CCAATGGGCAGCACAGAGGACCTGAATTCCAAGGAAGCCTCAGCATGGACCAGGGAGATGATAAAAGCAATGAG
CTTGTAATGAGCTGTCCATATTTTCGGAATGAGATAGGTGGAGAAGGGGAGAGGAAAAATCAGCCTTTCAAAATCA
AATTCTGGCTCCTTTAGTGATGTGAAAGTGCTCCTTTGAGTCTACCCTTAGTTCCCATTGCACAAATGCAGGA
GTGGCAGTACTTGAAGTGCCCAAGGAGAACTTGGTGTGACCTAGATAGAGTGAAAAGATACATCGTGGAACAC
GTAGATCTGGGTGCATACTATTATAGAAAAATTTTTCTACCAGAAGGAACACTGGAATTTTTGGGGCTGATGAG
AATCTTGGTCCAGTGCTGTGAGCATTGGAAGGAAAAACAGATGAAATGAAAGAAAATGGATCTCCGTACAAC
TACCGAATAATTTTTAGAACTAGTGAGCTCATGACACTGAGAGGTTTCGGTCTGGAGGACGCCATTCCGTGCACA
GCCAAGCACTCGACAGCCAGAGGCCTGCCTCTCAAAGAAGTGCTGGAGCACGTGGTTCTGAGCTCAATGTCCAG
TGCTTGGGTTGGCCTTCAACACACCCAAGGTCACAGAGCAGCTCATGAACTGGATGAACAAGGGCTGAACTAC
CAGCAGAAAGTAGGCATCATGTACTGCAAAGCTGGACAGAGCACTGAAGAAGAGATGTACAACAATGAGTCAGCT
GGCCCAGCCTTTGAAGAATTCCTTCAACTATTGGGAGAGCGAGTTTCGGCTCAAAGGATTTGAGAAGTATCGAGCA
CAGCTTGATACAAAACCTGACTCCACTGGAACCCATTCTCTGTACACAACATACAAAGATTATGAAATTATGTTT
CATGTTTCTACCATGCTGCCATACACACCCAACAACAACAACAGCTCCTGAGGAAGCGGCACATTGGAAATGAT
ATCGTAACAATTGTTTTCCAAGAGCCTGGAGCACAGCCATTAGCCCCAAAAACATCCGATCCCACTTCCAGCAC
GTTTTCTGTCATCGTCAGGGTGACAAATCCGTGCTCTGACAGTGTCTGTTATAGTGTGGCTGTTACCAGGTCCAGA
GATGTGCCTTCCTTTGGGCCTCCCATTCCTAAAGGGGTCACCTTCCCTAAGTCAAATGTGTTTCAGGGACTTCCTT
TTGGCGAAAGTGATTAATGCAGAAAATGCTGCTCATAAATCGGAGAAGTTTCGGGCCATGGCAACTCGGACCCGC
CAGGAATACCTGAAAGATCTGGCAGAAAAGAATGTCACCAACACCCCTATCGACCCTTCTGGCAAGTTCCGTTT
ATCTCTCTGGCTTCCAAGAAGAAGGAAAAGTCTAAGCCATATCCAGGAGCCGAGCTCAGCAGCATGGGGGCCATT
GTATGGGCAGTCCGGGCTGAAGACTACAACAAGGCCATGGAAGTACTGCCTTTTAGGGATCTCCAATGAGTTC
ATTGTGCTCATTGAACAGGAAACAAAGAGCGTGGTCTTCAATTGTTCTGTAGAGATGTGATAGGGTGGACTTCA
ACTGACACCAGCCTCAAAATCTTCTATGAACGAGGAGAATGTGTTTCAGTGGGTAGTTTTATTAAACATTGAGGAG
ATCAAAGAGATTGTCAAAGGTTGCAGTTTGTTCAAAAGGCTGTGAATCGGTGGAGATGACTCTGCGAAGAAAT
GGGCTAGGACAGCTTGGCTTCCATGTCAACTATGAGGGCATTGTGGCGGATGTGGAGCCCTACGGTTATGCCCTGG
CAGGCAGGGCTGAGGCAGGGCAGTCGCCTGGTGGAGATCTGCAAGGTGGCGGTAGCCACTCTGAGCCATGAGCAG
ATGATCGACCTCCTGAGAACATCTGTACCGGTGAAGGTTGTATCATTTCCCCCGCATGATGACTGCACCCGCGG
AGGAGTTGCTCTGAAACCTACCGCATGCCAGTGATGGAGTACAAAATGAATGAAGGTGTTTCATACGAATTCAAG
TTTCCCTTCCGAAATAATAACAAGTGGCAGAGGAACGCCAGCAAGGGGCCTCATTACCTCAAGTCCCGTCCAG

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FIGURE 192B

GTGCAGAGTCCCATGACCTCGCGGCTGAATGCTGGAAAAGGAGATGGGAAGATGCCTCCTCCAGAAAGAGCCGCC
AACATCCCTCGAAGCATCTCCAGTGACGGGCGCCCACTAGAGAGGCGGCTGTCTCCTGGTTTCGGACATCTATGTG
ACGGTCTCATCCATGGCTTTAGCAAGATCCCAGTGTCGGAACCTCCTAGCAACTTGTCTTCATCCAGTGATACT
GGTTCTGTGGGGGGCACTTACAGGCAGAAGTCCATGCCCCGAAGGGTTTGGAGTGAGCCGTAGATCCCCAGCCTCC
ATTGACAGGCAGAACACCCAGTCAGATATTGGTGGCAGCGGAAAAATCCACGCCTAGCTGGCAAAGAAGTGAGGAT
AGCATTGCTGACCAGATGGCTTACAGTTATAGAGGACCTCAGGATTTCAATTCTTTTGTCTCGAGCAGCATGAA
TATACAGAGCCAAACATGCCATCTCCCAGCAGTATCAAAGGTACTGCCAGCTTTCCGAGAGAGCCCCAGTGGGAGA
TTAATGCGGCAGGATCCAGTGGTTCAATTTGTCTCCAAACAACAAGGGCATTCTGATAGCCACTACTCGAGCCAC
TCCAGTAGCAATACTCTCTCCAGCAATGCGTCAAGTGCCCATAGTGATGAGAAGTGGTACGATGGGGACCGCACA
GAATCCGAACCTCAACAGCTATAACTATCTGCAAGGCACCTCTGTGACAGTGGCATTGACACCACCTCTTATGGC
CCCAGCCACGGCAGCACAGCCTCGCTGGGGGCTGCCACATCGTCACCTCGCTCAGGGCCAGGCAAGGAGAAAGTG
GCACCCCTATGGCACAGCTCCAGTGAAGTAATCTCCATGGCAGATCGGACTTTGGAGACAGAGAGCCACGGCCTG
GACCGGAAAACAGAGTCTTCCCTGAGCTTAGACATAACAGCAAGAGCCAAGCCGGCTCGACCCCTCTGACAAGG
GAGAACAGCACCTTCAGTATAAACGATGCTGCTTCCACACAAGTACCATGAGCTCCCGACACTCTGCCAGCCCA
GTGGTTTTTACCAGTGCCCGGAGTTACCTAAAGAAGAGCTTCATCCAGCTGCCCCCTCACAGCTCGCACCATCC
TTCTCCTCCTCTTCTCCTCCTCCTCTGCTCTAGGAGTTTTTACCCTCGCCAGGGCGCTACTAGCAAGTACCTG
ATTGGATGGAAAAAACCCGAAGGAACCATAAACTCGTGGGATTTATGGACACGAGAAAGCGTCATCAGAGCGAT
GGCAATGAAATAGCCACACACAGGCTGCGTGCCTCAACCAGAGACCTCCGGGCATCTCCTAAGCCAACCTCCAAG
TCCACCATTTGAAGAAGATCTAAAGAACTAATTGATCTTGAAAGCCCAACTCCTGAATCACAGAAGAGTTTTAAG
TTCCACGCACTCTCCTCTCCTCAGTCTCCTTTCCCCAGCACCCCCACCTCACGGCGGGCCTTGACAGAACACTG
TCGGACGAGAGCATTTACAATAGCCAGAGGGAGCACTTTTTACCTCCAGGGCGTCACTTCTGGACCAAGCCCTG
CCCAACGACGTCTCTTTCAGTAGCACGTACCCTTCTCTCCCCAAGTCGCTCCCGTTGAGGAGGCCTTCTTACACC
TTAGGAATGAAATCGCTGCATGGAGAGTTCTCAGCCTCGGACAGCTCCCTCACTGACATCCAGGAGACCCGAGG
CAGCCTATGCCCCGACCCTGGCCTGATGCCCCCTGCCTGACACTGCTGCAGACTTGGATTGGTCCAACCTGGTAGAT
GCTGCCAAAGCCTATGAGGTCCAGAGAGCCTCATTTTTTGCTGCTAGTGATGAAAACCATCGCCCCTTGAGTGCT
GCATCCAACAGTGATCAGCTGGAGGACCAGGCTCTGGCCAGATGAAGCCTTACAGCAGCAGTAAAGACTCCTCT
CCCCTCTGGCTTCTAAAGTGGACCAGCTGGAAGGTATGCTGAAGATGCTTCGGGAAGATTTGAAGAAGGAAAAA
GAAGACAAAGCTCACCTTCAGGCGGAGGTGCAGCACCTGCGAGAGGACAACCTGAGGCTACAGGAGGAGTCCCAG
AACGCCTCGGACAAGCTGAAGAAGTTCACAGAATGGGTCTTCAACACCATAGACATGAGCTAGGGAAGGCTGAGG
AGGACAGGAGAAGGGCCAGACACTCCCTCCAGTGAGTGTCTGCAGCCCTTATCCCTCCATAGAAAGCATCCT
CAGAGCACCTTCCCTGGCTTCCTACTCTGCCCCCTTTCGGGGAGTGCAACACAATAGTTGCAGATCAACAATC
ATCACCTGCCTTTTGTAGAAAAGAAAAACAAAAAAGTAAATAAAAAATTTTAAACAGTAAAATAAAAGTTTAACT
GCTAAAAA

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FIGURE 193

MTSLKRSQTERPLATDRASVVGTDGTPKVHTDDFYMRRFRSQNGSLGSSVMAPVGPPRSEGSHHITSTPGVPMKG
VRARIADWPPRKENIKESSRSSQEIETSSCLDSLSSKSSPVSQGSVSLNSNDSAMLKSIQNTLKNKTRPSENMD
SRFLMPEAYPSSPRKALRRIRQRSNSDITISELDVDSFDECISPTYKTGPSLHREYGSTSSIDKQGTSGESFFDL
LKGYKDDKSDRGPTPTKLSDFLITGGGKGSGFSLDVIDGPISQRENRLFKEREKPLKRRSKSETGDSSIFRKLK
NAKGEELGKSSDLEDNRSEDSVRPWTCPKCFAHYDVQSILFDLNEAIMNRHNVIKRRNTTTGASAAVASLVSGP
LSHSASFSSPMGSTEDLNSKGSLSMQDQDDKSNELVMSCPYFRNEIGGEGEKISLSKSNSGSFSGCESASFEST
LSSHCTNAGVAVLEVPEKENLVLHLDRVKRYIVEHVDLGAYYYRKFYQKEHWNYPGADENLGPVAVSIRREKPDE
MKENGSPYNYRIIFRTSELMTLRGSVLEDAIPSTAKHSTARGLPLKEVLEHVPELVQCLRLAFNTPKVTEQLM
KLDEQGLNYQQKVGIMYCKAGQSTEEEMYNNESAGPAFEFELQLLGERVRLKGFKEYRAQLDTKTDSTGTHSLYT
TYKDYEIMFHVSTMLPYTPNNKQQLLRKRHIGNDIVTIVFQEPGAQPFSPKNIRSHFQHVIVRVHNPCSDSVC
YSVAVTRSRDVPSPGPPPKGVTFPKSNVFRDFLLAKVINAENAAHKSEKFRAMATRTRQEYLKDLAEKNVTNTP
IDPSGKFPFISLASKKKEKSKPYPGAELSSMGAIVWAVRAEDYNKAMELDCLLGISNEFIVLIEQETKSVVFNCS
CRDVIGWISTDTSLKIFYERGECSVSGSFINIEEIKEIVKRLQFVSKGCESVEMTLRRNGLGQLGFHVNYEGIVA
DVEPYGYAWQAGLRQGSRLVEICKVAVATLSHEQMIDLLRTSVTVKVVIIPPHDDCTPRRSCSETYRMPVMEYKM
NEGVSYEFKFPFRNNKNWQRNASKGPHSPQVPSQVQSPMTRSRLNAGKGDGKMPPPERAANIPRSISSDGRPLERR
LSPGSDIYVTVSSMALARSQCRNSPSNLSSSSDTG SVGGTYRQKSMPEGFGVSRSPASIDRQNTQSDIGGSGKS
TPSWQRSEDSIADQMAYSIRGPQDFNSFVLEQHEYTEPTCHLPAVSKVLPAFRESPSGRLMRQDPVVHLSPNKQG
HSDSHYSSSSNTLSSNASSAHSDEKWDGDRTESELNSYNLQGTSA DSGIDTTSYGPSHGSTASLGAATSSP
RSGPGKEKVAPLWHSSEVISMADRTLETESHGLDRKTESSLSDIHSKSQAGSTPLTRENSTFSINDAASHTST
MSSRHSASPVVFTSARSSPKEELHPAAPSQ LAPSFSSSSSSSSGPRS FYPRQGATSKYLIGWKKEGTINSVGFM
DTRKRHQSDGNEIAHTRLRASTRDLRASPKPTSKSTIEEDLKKLIDLESPTPESQKSFKFHALSSPQSPFPSTPT
SRRALHRTLSDESIYNSQREHFFTSRASLLDQALPNDVLFSSSTYPSLPKSLPLRRPSYTLGMKSLHGEFSASDSS
LTDIQETRRQPMFDPGLMPLPDTAADLDWSNLVDAAKAYEVQRASFFAASDENHRPLSAASNSDQLEDQALQMK
PYSSSKDSSPTLASKVDQLEGMLKMLREDLKKEKEDKAHLQAEVQHLREDNLRLQEESQNASDKLKKFTEWVFNT
IDMS

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FIGURE 194A

GTGACCACGGACCA3GCAGTCTCTAATGAATAGGCAAGGCCACAACCTCCATTCTCCCAGAAAAGAAGAAATGCT
CATCTGAAATTCATCACCTCTCTGGAGTCTTCAAACCTGACCAAGCATTGAAAAGAACACAGTTTCAGAAAACAGT
TTCCAGTGCCTCTGGCCTTCTACTGAAAGCAGACACAGAGTGCATGAAGACCGTTCAAATATGTCAGGGGACCTC
CTCCCATGAGTCTTCTATGACTCCCTCTCAGACATGCAGGAAGAAAGCAAGAATACTGACTTCTTCCCGGGCCT
TTCTGCTTTCTCAGCCAGGAAGAGATAAACAAGAGTCTTGACCTGGCCCCGAGAGCCATAGCCGACTCCGAAAC
AGAAGATTTTGACTCGGAAAAGGAGATCTCGCAGATTTTCAGTACTTCTCCTGCAAGCCTCTGTGAACATCCTTC
CCATAAGGAGACCAAATTGGGTGAACACGCCTCGAGGAGACCTCAGGATAACAGGTCAACACCTGTCCAGCCTCT
GGCAGAGAAAACAACTAAGAGTATCTCTTACCTGTTTCAAAGAGGAAACCTGCCATGTCACCCCTGCTCACCAG
GCCCAGCTACATCCGGAGCCTCCGAAAGGCTGAAAAGCGTGGTGCAAAAACCTCCAGCACAAACGTAAAGCCCCAA
AACGCCACATCAAAGAAAGGGTGGCCCCCAGAGCCAGCTGTGTGACAAGGCAGCTAATTTAATTGAGGAGCTAAC
ATCCATATTTAAAGCCGCAAAGCCAAGAAACAGAAGCCCAAATGGGGAGTCTCGTCACCAGACAGTGGGTACCT
GTCTCCTAAAAATCAGCCGTCAGCCCTGCTGAGTGCCTCAGCCAGCCAGAGCCCTATGGAAGACCAAGGGGAGAT
GGAAAGAGAGGTCAAGTCCCTTGGGGCCAGGCATTGCTACCAGGACAACCAGGACTTGGCAGTGCCACACAACCG
CAAGTCTCACCCACAGCCCCACAGCGCCTCCACTTCCAGCTGCACCTCGATTTCATCCAAAAGCTGAGGAGCCA
AGAAGTAGCAGAAGGGAGCCGAGTTTATCTGGAGTGTAGAGTCACTGGAAACCCCACTCCTCGAGTCAGATGGTT
CTGTGAAGGGAAAGAACTGCACAACACTCCTGATAATCAAATCCACTGTGAGGGAGGGGACCTCCATACCCTGAT
CATAGCAGAGGCCCTTTGAGGACGACACAGGTGCTACACCTGTTTGGCTACGAATCCCAGCGGCTCAGACACAAC
ATCTGCTGAGGTGTTTATTGAAGGTGCCAGTTCAACAGATTCTGACAGTGAAAGTTTAGCTTTCAAATCAAGAGC
TGGAGCTATGCCACAAGCTCAAAAAGAAAACAACCTTCTGTTTCTTGACAATAGGATCATCATCTCCAAAGACAGG
GGTGACCACAGCTGTGATTCAACCACTGTCTGTCCCTGTGCAACAGGTTTACAGTCCAACCTTCATATCTCTGCCG
ACCTGATGGAACCACTACTGCCTACTTTCTCTCTGTTTTTACAAAGGAACCTGCAAAAACACAGCCGTGGCGGAAGG
CCAGGTGGTGGTTCTGGAGTGCCGGGTCCGTGGGGCACCCCTCTGCAGGTCCAGTGGTTTCGGCAAGGGAGTGA
AATCCAAGACTCTCCAGATTTCCGAATTTCTACAGAAAAACCTAGATCTACAGCTGAACCTGAGGAGATTTGCAC
CCTAGTTATCGCTGAGACTTTCCCTGAAGATGCAGGGATCTTTACATGTTTCAGCAAGAAATGATTATGGATCAGC
AACCAGCACTGCCCAGCTGGTTGTACCTCAGCCAACACTGAAAACCTGTAGTTACGAGTCAATGGGAGAATCCAA
CAATGACCACTTCCAACACTTTCCACCTCCCCCTCCAATCTTGGAGACAAGTTCTTGGAGTTGGCTTCAAAGAA
ACCATCTGAGATCCAGCAGGTGAACAACCCCTGAGTTAGGCCTGAGCAGGGCAGCCCTTCAAATGCAATTCAATGC
TGCTGAGAGGGAAACGAGCGGAGTCCATCCCAGCCGTGGAGTAAATGGACTGATTAACGGCAAAGCTAACAGTAA
TAAATCTCTTCCAACACCAGCTGTCTGCTTTACCCACTAAGGAGCCACCACCTCTGCTTGCCAAACCAAACT
AGGATTTCCAAGAAGGCCAGTAGAACTGCTAGAAATAGCCTCCGATGAGGAAATTCAAGGCACAAAGGATGCTGT
TATTCAAGACCTGGAACGAAAACCTTCGCTTCAAGGAGGACCTCCTGAACAATGGCCAGCCGAGGTAAACATACGA
AGAAAGAATGGCTCGTCGACTGCTAGGTGCTGACAGTGCAACTGTCTTTAATATTACAGGAGCCAGAAGAGGAAAC
AGCTAATCAGGAATACAAAGTCTCCAGCTGTGAACAGAGACTCATCAGTGAAATAGAGTACAGGCTAGAAAGGTC
TCCTGTGGATGAATCAGGTGATGAAGTTCAGTATGGAGATGTGCCTGTGGAAAATGGAATGGCACCATTCTTTGA
GATGAAGCTGAAACATTACAAGATCTTTGAGGGAAATGCCAGTAACTTTACATGTAGAGTGGCTGGAAATCCAAA
GCCAAAGATCTATTGGTTTAAAGATGGGAAGCAGATCTCTCCAAAGAGTGATCACTACACCATTCAAAGAGATCT
CGATGGGACCTGCTCCCTCCATACCACAGCCTCCACCCTAGATGATGATGGGAATTATACAATTATGGCTGCAAA
CCCTCAGGGCCGATCAGTTGTACTGGACGGCTAATGGTACAGGCTGTCAACCAAAGAGGTGCAAGTCCCCGGTC
TCCCTCAGGCCATCTCATGTGAGAAGGCCTCGTTCTAGATCAAGGGACAGTGGAGACGAAAATGAACCAATTCA
GGAGCGATTCTTCAGACCTCACTTCTTGACAGGCTCCTGGAGATCTGACTGTTCAAGAAGGAAAACCTCTGCAGAAAT
GGACTGCAAAGTCAGTGGGTACCAACCCAGATCTAAGCTGGCAACTAGATGGAAAGCCCGTACGCCCTGACAG
TGCTCACAAGATGCTGGTGCCTGAGAACGGGGTGCACCTCTGATCATAGAGCCAGTCACGTCACGTGATGCCGG
CATCTACACATGTATAGCTACCAACCGAGCAGGACAGAACTCATTACGCCTGGAGCTTGTGGTTGCTGCTAAAGA
AGCACACAAACCCCTGTGTTTATTGAGAAGCTCCAAAACACAGGAGTTGCTGATGGGTACCCAGTGCGGCTGGA
ATGTCGTGTATTGGGAGTGCCACCACCTCAGATATTTTGAAGAAAGAAAATGAATCACTCACTCACAGCACTGA
CCGAGTGAGCATGCACCAGGACAACCACGGCTACATCTGCCTGCTCATTACGGGAGCCACAAAAGAAGATGCTGG
GTGGTATACTGTGTACGCCAAGAATGAAGCAGGGAATTGTGCTGTACTGCCAGGCTGGACGTTTACATTTCTCG
ACATTAATAGTGAACCACACCAGGAGAACAATAACCAACCCAGTGGCATCAGCAGTCACAGAGCACCAAGCCAA

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FIGURE 194B

AAAAAGTACGGCCCTCAGCCAGTCGCTATGCAGCACTTTCGGACCAGGGACTAGACATCAAAGCAGCGTTCCAAC
CTGAGGCCAACCCATCTCACCTGACACTGAATACTGCCTTGGTAGAAAGTGAGGACCTGTAATCCAGCATTCTTG
TTAAAGCTGAAACACTGAAACAGCCATTGCCTTGACCAACATATTCCTTTGTCACATTATGTAAAAGGCAGAAAC
ATACCTTTGACTATAAGAAATTAAAAAAAACACCAAAATAATATTTTTCTTACTTGATATACCAAACCTTAGTTT
AAGTAGATAATGCTAATACAAATATACACATTGCAACAGAAAATACACATTTACTGTCCAATTTAAAACCTTGGAA
TTGCTGTGATTAAAGTGATCAAAATGCCAAAATACTAAAGGAAATCAATTGTTTACAGGTAACCTACAATTTGTAT
TATCTACAAGTGCCTTTAAACACAAGATATAGGTGCTGTGTAGCCTGATAGTGTGAAATGTTTTAATGAGGGAGTT
GTACCACAAACAGTACTACAATGATTCTGAAGCACAGTGTATTGAGACAGATACAGTGAACCAAGTGCAATATGT
AAGGATGAAAGAAGAAGAGATGACAAAGAARTCCAAGTAAATGCCTTGTCTTTGCAAAATGTTTTTATATTAAATC
ATAAGGAAGGAACTACTTGCCTTAAATGTTAATATCAAAAGAGTTTTCTAACAAGGTTAATACCTTAGTTCTTAA
CATTTTTTTTTCTTTATGTGTAGTGTTTTCATGCTACCTTGGTAGGAAACTTATTTACAAACCATATTAAAAGGCT
AATTTAAATATAAATAATATAAAGTGCTCTGAATAAAGCAGAAATATATTACAGTTCATTCCACAGAAAGCATCC
AAACCACCCAAATGACCAAGGCATATATAGTATTTGGAGGAATCAGGGGTTTGAAGGAGTAGGGAGGAGAATGA
AGGAAARTGCAACCAGCATGATTATAGTGTGTTTATTTAGATAAAAGTAGAAGGCACAGGAGAGGTAGCAAAGGC
CAGGCTTTTTCTTTGGTTTTCTTCAAACATAGGTGAAAAAACACTGCCATTCAAGTCAAGGAACCCAGGGCCA
GCTGGAAGTGTGGAGCACACATGCTGTGGAGCACACATGCTGTGGAGATTGCAGTGTGTCTGAGGTTTGTGTAGT
AGTGGAAGATTTTAGGTATGTAGAGCAAGTTGAAAATGGATTGAGACTGCATGGTGGCATAAATGAGAAATTGCC
TGTAGCATCTAGTCTACTTGAAGGAAGTGGAGACATAAGGAGAGACAAAAACAGGTTTGTGCCATAAAGTATTTT
TTCAAAGACACCAAGATGTGGTAAATGAAAATTATTAGTTCACTTCCCTGCTGCCATGAAACTTTGCCTTAAGAA
GGTGCTGGATTCCAAGGTTTGTAAAGGCATCTCGGTAAAGACTGCTTTTTGAATGCATATGATTTTGCATCAGCT
AGACTGAGTTGATTCTGACCAGACTTGATGGTTTTAAGTCGGAACCGATAAATTTTAAAAAGGAGAAAAATAAT
TTGACCTAGTAGTATAAAACATGAGGCTTTAATGGTACTTTGCTATGAAAAGAAAAACTGTATTCCTTATGCAA
AACACATGTATCTTTTATTATTTATAAGTGGCCTCTCTTAGCTCAGTTACTCAATTCATACGTAATATTTTTTAA
AATAATTTTATATCTGTGTACCACCCCATATATTTTCAATTACTGTTTCACATGTACAGCTTTCTACTTCTTTGT
AAGAACACCAACCAACCAAGGTTTAAAGTGATTAATAGGCTTGAGCACCGGGTGGCAGATGTTCTATGCAGTGTGG
TTCAAGTTTCTTTGACCGCACTTATATGCATTGCTAGTATGGAATTTAAGATACCATACACAGTCTCTCATGGAC
CTATCTCTATTGTAGAATTATGACTTATGTCTTACTTGGCAAATTTTTCTGAATGTGACCTTTTTTTGCTGATTT
GCTGGGTTTGGGATTAAGTAGCATTATTTTGCCACCTTTATATTGTATTTATAAAAAAAGTACTATCAATCAAT
CATACTACTTTGGATTGTTGTGCTGGTGAATGTGGATTTAATCAATAAATATTTGACAAATAAAAAA

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FIGURE 195

MSGTSSHESFYDSLSDMQEESKNTDFFPGLSAFLSQEEINKSLDLARRAIADSETEDFDSEKEISQIFSTSPASL
CEHP SHKETKLGEHASRRPQDN RSTPVQPLAEKQTKSISSPVSKRKPAMSPLLTRPSYIRSLRKA EKRGAKTPST
NVKPKTPHQ RKGGPQS QLCDKAANLIEELTSIFKAAKPRNRSPNGESSSPDSGYLSPKNQPSALLSASASQSPME
DQGEMEREVKSPGARHCYQDNQDLAVPHNRKSHPPHSA LHFPAPRF IQKLRSQEVAEGSRVYLECRVTGNPTP
RVRWFCEGKELHNTPD IQIHCEGGDLHTLI IAEAFEDDTGRYTCLATNP SGSDTTSAEVFIEGASSTDSDSES LA
FKSRAGAMPQAQKTTTSVSLTIGSSSPKTGVTTAVIQPLSVPVQVHSPTS YLCRPDGT TAYFPPVFTKELQNT
AVAEGQVVVLECRVRGAPPLQVQWFRQGSEIQDSPDFRILQKKPRSTAEP EEEICTLVIAETFPEDAGIFTCSARN
DYGSATSTAQLVVT SANTENCSYESMGESNNDHFQHFP PPPPILETSSLELASKKPSEIQQVNNPELGLSRAALQ
MQFNAAERETSGVHPSRGVNGLINGKANSNKS LPTPAVLLSPTKEPPPLLAKPKLGFPKKASRTARIASDEEIQG
TKDAVIQDLERKLRFKEDLLNNGQ PRLTYEERMARRLLGADSATVFNIQEPEEETANQEYKVSSCEQRLISEIEY
RLERSPVDES GDEVQYGDVPVENGMAPFFEMKLKHYKIFEGMPVTFTCRVAGNPKPKIYWFKD GKQISPKSDHYT
IQRDL DGTCSLHTTASTLDDDGNYT IMAANPQGRI SCTGRLMVQAVNQGRSPRSPSGHPHVRRPRSRSRDSGDE
NEPIQERFFRPHFLQAPGDLTVQEGKLCRMDCKVS GLPTPDL SWQLDGKPV RPDSAHKMLVRENGVHSLIIEPVT
SRDAGIYT CIATNRAGQNSFSLELVVAAKEAHKPPVFIEKLQNTGVADGY PVRLECRVLGVPPPQIFWKKENESL
THSTDRVSMHQDNHGYICLLIQGATKEDAGWYTVSAKNEAGIVSCTARLDVYISRH

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FIGURE 196

CCCAGCCGGTCCAGGCCTCTGGCGAACATGGCGCTTGTCCCCTGCCAGGTGCTGCGGATGGCAATCC TGCTGTCC
TACTGCTCTATCCTGTGTAAC TACAAGGCCATCGAAATGCCCTCACACCAGACCTACGGAGGGAGCTGGAAATTC
CTGACGTTTCAATTGATCTGGTTATCCAGGCTGTCTTTTTTGGCATCTGTGTGCTGACTGATCTTTCCAGTCTTCTG
ACTCGAGGAATTGGGAACCAGGAGCAAGAGAGGCAGCTCAAGAAGCTCATCTCTCTCCGGGACTGGATGTTAGCT
GTGTTGGCCTTTCTGTGTTGGGGTTTTTGTGTAGCAGTGTTCTGGATCATTTATGCCTATGACAGAGAGATGATA
TACCCGAAGCTGCTGGATAATTTTATCCCAGGGTGGCTGAATCACGGAATGCACACGACGGTTCTGCCCTTTATA
TTAATCGAGATGAGGACATCGCACCATCAGTATCCCAGCAGGAGCAGCGGACTTACCGCCATATGTACCTTCTCT
GTTGGCTATATATTATGGGTGTGCTGGGTGCATCATGTAAC TGGCATGTGGGTGTACCCTTTCTGGAACACATT
GGCCCAGGAGCCAGAATCATCTTTTGGGTCTACAACCATCTTAATGAAC TTTCTGTACCTGCTGGGAGAAGTT
CTGAACAAC TATATCTGGGATACACAGAAAAGTATGGAAGAAGAGAAAGAAAAGCCTAAATTGAATGAGATCCA
AGTCTAAACGCAAGAGCTAGATTGAGCCGCCATTGAAGACTCCTTCCCCTCGGGCATTGGCAGTGGGGGAGAAAA
GGCTTCAAAGGAAC TTTGGTGGCATCAGCACCCCCCTCCCCCAATGAGGACACCTTTTATATATAAATATGTATAA
ACATAGAATACAGTTGTTTTCCAAAAGAACTCACCC TCACTGTGTGTTAAAGAATTCTTCCCAAAGTCATTACTGA
TAATAACATTTTTTCTTTTCTAGTTTTAAAACCAGAATTGGACCTTGGATTTTTATTTTGGCAATTGTAAC TCC
ATCTAATCAAGAAAGAATAAAAGTTTATTGCACTTCTTTTTGAGAAATATGTTAAAGTCAAAGGGGCATATATAG
AGTAAGGCTTTTGTGTATTTAATCCTAAAGGTGGCTGTAATCATGAACCTAGGCCACCATGGGGACCTGAGAGGG
AAGGGGACAGATGTTTCTCATTGCATAATGTCACAGTTGCCTCAAATGAGCACCATTTGTAATAATGATGTCAAT
TTCATGAAAAGCCTGAGTGTATTGCATCTCTTGATTTAATCATGTGAAACTTTTCTTAGATGCAAATGCTGACTA
ATAAAGACAAAGCCACCCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 197

MALVPCQVLRMAILLSYCSILCNYKAIEMPSHQTYGGSWKFLTFIDLVIQAVFFGICVLTDLSSLLTRGIGNQEQ
ERQLKKLISLRDWMLAVLAFVGVFVAVFWIIYAYDREMIYPKLLDNFIPGWLNHGMHTTVLPFILIEMRTSHH
QYPSRSSGLTAICTFSVGYYLWVCWVHHVTGMWVYPFLEHIGPGARIIFFGSTTILMNFLYLLGEVLNNYIWDTQ
KSMEEEKEKPKLE

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FIGURE 198

TGCAGTCTGTCTGAGGGCGGCCGAAGTGGCTGGCTCATTTAAGATGAGGCTTCTGCTGCTTCTCCTAGTGGCGGC
GTCTGCGATGGTCCGGAGCGAGGCCTCGGCCAATCTGGGCGGCGTGCCAGCAAGAGATTAAAGATGCAGTACGCC
ACGGGGCCGCTGCTCAAGTTCCAGATTTGTGTTTCTGAGGTTATAGGCGGGTGTTTGAGGAGTACATGCGGGTT
ATTAGCCAGCGGTACCCAGACATCCGCATTGAAGGAGAGAATTACCTCCCTCAACCAATATATAGACACATAGCA
TCTTTCCTGTCAGTCTTCAAACCTAGTATTAATAGGCTTAATAATTGTTGGCAAGGATCCTTTTGCTTTCTTTGGC
ATGCAAGCTCCTAGCATCTGGCAGTGGGGCCAAGAAAATAAGGTTTATGCATGTATGATGGTTTTCTTCTTGAGC
AACATGATTGAGAACCAGTGTATGTCAACAGGTGCATTTGAGATAACTTTAAATGATGTACCTGTGTGGTCTAAG
CTGGAATCTGGTCACCTTCCATCCATGCAACAACCTTGTTCAAATTCTTGACAATGAAATGAAGCTCAATGTGCAT
ATGGATTCAATCCCACACCATCGATCATAGCACCACCTATCAGCACTGAAAACCTCTTTTGCAATTAAGGGATCATT
GCAAGAGCAGCGTGACTGACATTATGAAGGCCTGTACTGAAGACAGCAAGCTGTTAGTACAGACCAGATGCTTTC
TTGGCAGGCTCGTTGTACCTCTTGGAACCTCAATGCAAGATAGTGTTCAGTGCTGGCATATTTTGGAATTCT
GCACATTCATGGAGTGCAATAATACTGTATAGCTTTCCCCCACCTCCCACAAAATCACCCAGTTAATGTGTGTGT
GTGTGTTTTTTTTTAAGGTAAACATTACTACTTGTAACCTTTTTTTCTTTAGTCATATTTGGAAAAAGTAGAAAATT
GGAGTTACATTTGGATTTTTTTTCCAA

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FIGURE 199

MQYATGPLLKFOICV'SXGYRRVFEEYMRVISQRYPDIRIEGENYLPQPIYRHIAFSLSVFKLVLIIGLIIVGKDPF
AFFGMQAPSIWQWGQENKVYACMMVFFLSNMIENQCMSTGAFEITLNDVPVWSKLESGHLPSMQQLVQILDNEMK
LNVHMDSIPHRS

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FIGURE 200A

GGCCCCGGCTGCGAGGAGGAGGCGGCGGCGCAGGAGGATGTA¹CTTGGTGGCGGGGGACAGGGGGTTGGCCGGC
TGCGGGCACCTCCTGGTCTCGCTGCTGCGGGCTGCTGCTGCTGCTGGCGCGCTCCGGCACCCGGGCGCTGGTCTGC
CTGCCCTGTGACGAGTCCAAGTGCAGGAGCCAGGAACCTGCCCCGGGAGCATCGTGAGGGCGTCTGCGGGCTGC
TGCTACACGTGCGCCAGCCAGAGGAACGAGAGCTGCGGCGGCACCTTCGGGATTTACGGAACCTGCGACCGGGGG
CTGCGTTGTGTCATCCGCCCCCGCTCAATGGCGACTCCCTCACCGAGTACGAAGCGGGCGTTTGCGAAGATGAG
AACTGGACTGATGACCAACTGCTTGGTTTTAAACCATGCAATGAAAACCTTATTGCTGGCTGCAATATAATCAAT
GGGAAATGTGAATGTAACACCATTGCAACCTGCAGCAATCCCTTTGAGTTTCCAAGTCAGGATATGTGCCTTTCA
GCTTTAAAGAGAATTGAAGAAGAGAAGCCAGATTGCTCCAAGGCCCGCTGTGAAGTCCAGTTCTCTCCACGTTGT
CCTGAAGATTCTGTTCTGATCGAGGGTTATGCTCCTCCTGGGGAGTGTGTCCCTTACCCAGCCGCTGCGTGTGC
AACCCCGCAGGCTGTCTGCGCAAAGTCTGCCAGCCGGGAAACCTGAACATACTAGTGTCAAAGCCTCAGGGAAG
CCGGGAGAGTGCTGTGACCTCTATGAGTGCAAACAGTTTTCGGCGTGACTGCAGGACTGTGGAATGCCCTCCT
GTTACAGCAGACCGCGTGTCCCCCGGACAGCTATGAACTCAAGTCAGACTAACTGCAGATGGTTGCTGTACTTTG
CCAACAAGATGCGAGTGTCTCTCTGGCTTATGTGGTTTCCCCGTGTGTGAGGTGGGATCCACTCCCCGCATAGTC
TCTCGTGGCGATGGGACACCTGGAAAGTGTGTGATGTCTTTGAATGTGTTAATGATACAAAGCCAGCCTGCGTA
TTTAAACAATGTGGAATATTATGATGGAGACATGTTTCGAATGGACAACCTGTGCGTTCTGTGATGCCAAGGGGGC
GTTGCCATCTGCTTCACTGCCCAGTGTGGTGAGATAAACTGCGAGAGGTACTACGTGCCCGAAGGAGAGTGCTGC
CCAGTGTGTGAAGATCCAGTGTATCCTTTTAAATAATCCCGCTGGCTGCTATGCCAATGGCCTGATCCTTGCCAC
GGAGACCGGTGGCGGGAAGACGACTGCACATTCTGCCAGTGCCTAACGGTGAACGCCACTGCGTTGCGACCGTC
TGCGGACAGACCTGCACAAACCCTGTGAAAGTGCC TGGGGAGTGTGTCCTGTGTGCGAAGAACCAACCATCATC
ACAGTTGATCCACCTGCATGTGGGGAGTTATCAAACCTGCACCTCTGACAGGGAAGGACTGCATTAATGGTTTTCAA
CGCGATCACAAATGGTTGTGCGACCTGTGAGTGATAAACACCGAGGAACCTATGTTTCAAGACGTAACAAGGCTGC
ACCTTGAAGTGTCCCTTCGGTTTCCTTACTGATGCCCAAACCTGTGAGATCTGTGAGTGCCGCCCAAGGCCCAAG
AAGTGCAGACCCATAATCTGTGACAAGTATTGTCCACTTGGATTGCTGAAGAATAAGCACGGCTGTGACATCTGT
CGCTGTAAGAAATGTCCAGAGCTCTCATGCAGTAAGATCTGCCCCCTTGGGTTTCCAGCAGGACAGTCACGGCTGT
CTTATCTGCAAGTGCAGAGAGGCCTCTGCTTCAGTGGGCCACCCATCCTGTGCGGGCACTTGTCTACCGTGGAT
GGTCATCATCATAAAAAATGAGGAGAGCTGGCACGATGGGTGCCGGGAATGCTACTGTCTCAATGGACGGGAAATG
TG TGCCCTGATCACCTGCCCGGTGCTGCTGTGGCAACCCACCATTCACCCTGGACAGTGTGCCCATCATGT
GCAGATGACTTTGTGGTGCAGAAGCCAGAGCTCAGTACTCCCTCCATTTGCCACGCCCCCTGGAGGAGAATACTTT
GTGGAAGGAGAAACGTGGAACATTGACTCCTGTACTCAGTGCACCTGCCACAGCGGACGGGTGCTGTGTGAGACA
GAGGTGTGCCACCGCTGCTCTGCCAGAACCCTCAGCACCCAGGATTCTGCTGCCACAGTGTACAGATCAA
CCTTTTCGGCCTTCCTTGTCCCGCAATAACAGCGTACCTAATTACTGCAAAAATGATGAAGGGGATATATTCTTG
GCAGCTGAGTCTTGGAAAGCCTGACGTTTGTACCAGCTGCATCTGCATTGATAGCGTAATTAGCTGTTTCTCTGAG
TCCTGCCCTTCTGTATCCTGTGAAAGACCTGTCTTGAGAAAAGGCCAGTGTGTCCCTACTGCATAGAAGACACA
ATTCCAAAGAAGGTGGTGTGCCACTTCAGTGGGAAGGCCTATGCCGACGAGGAGCGGTGGGACCTTGACAGCTGC
ACCCACTGCTACTGCCTGCAGGGCCAGACCCCTCTGCTCGACCGTCAGCTGCCCCCTCTGCCCTGTGTTGAGCCC
ATCAACGTGGAAGGAAGTTGCTGCCCAATGTGTCCAGAAATGTATGTCCCAGAACCAACCAATATACCCATTGAG
AAGACAAACCATCGAGGAGAGGTTGACCTGGAGGT TCCCTGTGGCCCACGCCTAGTGAAAATGATATCGTCCAT
CTCCCTAGAGATATGGGTACCTCCAGGTAGATTACAGAGATAACAGGCTGCACCAAGTGAAGATTCTTCACTG
GACTCCATTGCCTCAGTTGTGGTTCCCATATTATATGCCTCTCTATTATAATAGCATTCTTATTCATCAATCAG
AAGAAACAGTGGATACCACTGCTTGTGTGTTATCGAACCAACTAAGCCTTCTTCTTAAATAATCAGCTAGTA
TCTGTGAGTGCAGAAAGGAACAGAGTCCAGGTGGACAGTTCCAGAGAAATGCTAAGAATTGCAGAACCAGAT
GCAAGATTAGTGGCTTCTACAGCATGCAAAAACAGAACCATCTACAGGCAGACAATTTCTACCAAACAGTGTGA

AGAAAGGCAACTAGGATGAGGTTTCAAAAGACGGAAGACGACTAAATCTGCTCTAAAAAGTAAACTAGAATTTGT
GCACTTGCTTAGTGGATTGTATTGGATTGTGACTTGATGTACAGCGCTAAGACCTTACTGGGATGGGCTCTGTCT
ACAGCAATGTGCAGAACAAAGCATTCCCACTTTTCC TCAAGATAACTGACCAAGTGTTCCTTAGAACCAAGTTT
TTAAAGTTGCTAAGATATATTTGCCTGTAAAGATAGCTGTAGAGATATTTGGGGTGGGGACAGTGAGTTTGGATGG
GGAAATGGGTGGGAGGGTGGTGTGGGAAGAAAAATGGTTCAGCTTGGCTCGGGGAGAAACCTGGTAACATAAAA
GCAGTTAGTGGCCAGAGGTTATTTTTTTCCTATTGCTCTGAAGACTGCACTGGTTGCTGCAAAGCTCAGGCCT

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FIGURE 200B

GAATGAGCAGGAAACAAAAAAGGCCTTGCGACCCAGCTGCCATAACCACCTTAGAACTACCAGACGAGCACATCA
GAACCCCTTTGACAGCCATCCCAGGTCTAAAGCCACAAGTTTCTTTTCTATACAGTCACAAGTGCAGTAGGCAGTG
AGGAAGCCAGAGAAATGCGATAGCGGCATTTCTCTAAAGCGGGTTATTAAGGATATATACAGTTACACTTTTTTG
TGCTTTTATTTTCTTCCAAGCCAATCAATCAGCCAGTTCCTAGCAGAGTCAGCACATGAACAAGATCTAAGTCAT
TTCTTGATGTGAGCACTGGAGCTTTTTTTTTTTTACAACGTGACAGGAAGAGGAGGGAGAGGGTGACGAACACCA
GGCATTTCAGGGGCTATATTTCACTGTTTGTTGTTGCTTTGTTCTGTTATATTGTTGGTTGTTTCATAGTTTTTG
TTGAAGCTCTAGCTTAAGAAGAACTTTTTTTTAAAAAGACTGTTTGGGGATTCTTTTTCTTTATTATATACTGAT
TCTACAAAATAGAACTACTTCATTTTAATTGTATATTATTCAAGCACCTTTGTTGAAGCTCAAAAAAATGATG
CCTCTTTAACTTTAGCAATTATAGGAGTATTTATGTAACATCTTATGCTTCAAAAAACAAAAGTATTTGTGTG
CATGTGTATATAATATATATATATACATATATATTTATACACATACAATTTATGTTTTCTGTTGAATGTATTTT
TATGAGATTTTAAACCAGAACAAAGGCAGATAAACAGGCATTCCATAGCAGTGCTTTTGATCACTTACAAATTTTT
TGAATAACACAAAATCTCATTCTACCTGCAGTTTAAATTGGAAAGATGTGTGTGTGAGAGTATGTATGTGTGTG
TGTGTGTGTGTGTGTGCGCGCGCACGCACGCCTTGAGCAGTCAGCATTGCACCTGCTATGGAGAAGGGTATTCC
TTATTAATAATCTTCCTCATTGATTGCTTTTCAGTTGGTTTTTCAATTTGCTCACTGGCCAGAGACATTGATGGC
AGTTCTTATCTGCATCACTAATCAGCTCCTGGATTTTTTTTTTTTTTTTTTCAAACAATGGTTTGAAACAAC
TGGAATATTGTCCACAATAAGCTGGAAGTTTGTGTAGTATGCCTCAAATATAACTGACTGTATACTATAGTGGT
AACTTTTCAAACAGCCCTTAGCACTTTTATACTAATTAACCCATTTGTGCATTGAGTTTTCTTTTAAAAATGCTT
GTTGTGAAAGACACAGATACCCAGTATGCTTAACGTGAAAAGAAAATGTGTTCTGTTTTGTAAAGGAACTTCAA
GTATTGTTGTAAATACTTGGACAGAGTTGCTGAACTTTAAAAAAAATTAATTTATTATTATAATGACCTAATTT
ATTAATCTGAAGATTAACCATTTTTTTGTCTTAGAATATCAAAAAGAAAAAGAAAAAGGTGTTCTAGCTGTTTGC
ATCAAAGGAAAAAAGATTTATTATCAAGGGGCAATATTTTTATCTTTTCCAAAATAAATTTGTTAATGATACAT
TACAAAATAGATTGACATCAGCCTGATTAGTATAAATTTGTTGGTAATTAATCCATTCCCTGGCATAAAAAGTC
TTTATCAAAAAAATGTAGATGCTTGCTTTTTGTTTTTTCAATCATGGCCATATTATGAAAATACTAACAGGAT
ATAGGACAAGGTGTAAATTTTTTTATTATTATTTTAAAGATATGATTTATCCTGAGTGCTGTATCTATTACTCTT
TTACTTTGGTTCTGTTGTGCTCTTGTAAGAAAAATATAATTTCTGAAGAATAAAATAGATATATGGCACTT
GGAGTGCATCATAGTTCTACAGTTTGTTTTTGTTTTCTTCAAAAAGCTGTAAGAGAATTATCTGCAACTTGATT
CTTGGCAGGAAATAAACATTTTGAGTTGAAATCAAAAAAAAAAAAAAAAAA

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FIGURE 201

MYLVAGDRGLAGCGHLLVSLGLLLLLLARSCTRALVCLPCDESKCEEPRNCPGSIVQGVCGCCYTCASQRNESCG
GTFGIYGTCDRGLRCVIRPPLNGDSLTEYEAGVCEDENWTDQLLGFKPCNENLIAGCNIINGKCECNTIRTCSN
PFEFFSQDMCLSAKRIEEKPDCKARCEVQFSPRCPEDSVLIEGYAPPGECCPLPSRCVCNPNAGCLRKVCQPG
NLNILVSKASGKPGECDDLYECKPVFGVDCRTVECPVQQTACPPDSYETQVRLTADGCCTLPTRECLSGLCGF
PVCEVGSTPRIVSRGDGTPGKCCDVFECDVNDTKPACVFNNVEYYDGMFRMDNCRFCRCQGGVAICFTAQCGEIN
CERYYPVEGECCPVCEDPVYPFNNPAGCYANGLILAHGDRWREDDCTFCQCVNGERHCVATVCGQTCTNPVKVPG
ECCPVCEPTIITVDPPACGELSNCTLTGKDCINGFKRDHNGCRTCQCINTEELCSERKQGCTLNCPFGFLTDAQ
NCEICECRPRPKCRPIICDKYCPLGLLKNKHGCDICRCKKPELSCSKICPLGFQQDSHGCLICKCREASASAG
PPILSGTCLTVDGHHHKNEESWHDGCRECYCLNGREMCALITCPVPACGNPTIHPGQCCPSCADDFVVQKPELST
PSICHAPGGEYFVEGETWNIDSCTQCTCHSGRVLCETEVCPELLCQNPSTQDSCCPQCTDQPFPRPSLSRNNSVP
NYCKNDEGDIFLAAESWKPDVCTSCICIDSVISCFSESCPSVSCERPVLKRGQCCPYCIEDTIPKKVVCHFSGKA
YADEERWDLDSCTHCYCLQGQTLCTVSCPPLPCVEPINVEGSCCPMCPEMYVPEPTNIPIEKTNHRGEVDLEVP
LWPTPSENDIVHLPRDMGHLQVDYRDNRLHPSEDSSLDSIASVVVPIIICLSIIIAFLFINQKKQWIPLLCWYRT
PTKPSSLNNQLVSVDCCKGTRVQVDSSQRLRIAEPDARFSGFYSMQKQNLQADNFYQTV

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FIGURE 202

GAGCTGCGAAAGGGCGGGAAAGGCAGTTGGAGAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAG
GCGGCGGCGGCCTCGGCTGAAGAAAGAAGGTGGGAGCGGAGAGCGCAGGCGTGAATCTTCCCAAGGCTGCAGAC
ACCGACGGATTTGCTTTGGGAGCCAGAGTAGCTGCCGCCACCAGAGTCCGGAGCCATGAGCGGGTTTAATTTTGG
AGGCACTGGGGCCCCACAGGCGGGTTACAGTTTGGCACTGCAAAGACGGCAACAACCACACCTGCTACAGGGTT
TTCTTTCTCCACCTCTGGCACTGGAGGGTTTAATTTGGGGCTCCCTTCCAACCAGCCACAAGTACCCCTTCCAC
CGGCTGTCTCACTTGCCACCCAGACTCCGGCCACACAGACGACAGGCTTCACTTTTGGAACAGCGACTCTTGC
TTGGGGGGGAAGTGGATTTCTTTGGGGATCGGTGCTTCAAAGCTCAACTTGAGCAACACAGCTGCCACCCAGC
CATGGCAAACCCAGCGGCTTTGGGCTGGGCAGCAGCAACCTCACTAATGCCATATCGAGCACCCTCACCTCCAG
CCAGGGCACAGCACCCACCGGCTTTGTGTTTGGCCCTCCACCACCTCTGTGGCTCCAGCTACCACATCTGGAGG
CTTCTCATTCACTGGTGGAAGCACGGCCCAACCCTCCGGTTTCAACATTGGCTCAGCAGGGAATTCAGCCCAGCC
CACGGCACCTGCCACGTTGCCCTTCACTCCGGCCACGCCAGCAGCCACCACAGCAGGTGCCACACAGCCAGCTGC
TCCACACCCACAGCCACCATCACCAGTACTGGGCCAGCCTCTTTGCGTCAATAGCAACTGCTCCAACCTCATC
TGCCACCACTGGACTCTCCCTCTGTACCCCTGTGACCACAGCGGGCGCCCCACTGCTGGGACACAGGGCTTCAG
CTTAAAGGCACCTGGAGCAGCTTCCGGCACCTCCACAACAACATCCACCGCTGCCACCGCCACCGCCACCACCAC
CACCAGCAGCAGCACCACCGGCTTTGCCTTGAATTTAAACCAGTGGCGCCAGCCGGGATCCCCAGCAATACAGC
AGCTGCCGTGACCGCTCCACCTGGCCCTGGCGCAGCTGCAGGGGCGGCTGCCAGCTCCGCCATGACCTACGCGCA
GCTGGAGAGCCTGATCAACAAATGGAGCCTGGAGCTAGAGGACCAGGAGCGGCACTTCCTCCAGCAGGCCACCCA
GGTCAACGCCTGGGACCGCACGCTGATCGAGAATGGAGAAAAGATCACCAGCCTGCACCGCGAGGTGGAGAAGGT
GAAGCTGGACCAGAAGAGGCTGGACCAGGAGCTCGACTTCATCTGTCCCAGCAGAAGGAGCTGGAAGACCTGCT
GAGCCCACTGGAGGAGTTGGTCAAGGAGCAGAGCGGGACCATCTACCTGCAGCACGCGGATGAGGAGCGTGAGAA
AACCTACAAGCTGGCTGAGAACATCGACGCACAGCTCAAGCGCATGGCCCAGGATCTCAAGGACATCATCGAGCA
CCTGAACACGTCCGGGGCCCCCGCCGACACCAGTGACCCACTGCAGCAGATCTGCAAGATCCTCAATGCGCACAT
GGACTCACTGCAGTGATCGACCAGAAGTCCGGCCCTGCTGCAGAGGAAGGTGGAGGAGGTGACCAAGGTGTGCGA
GGGCGGCGCAAGGAGCAGGAGCGCAGCTTCCGGATCACCTTTGACTAGCGGACAGCAGCCCTGGGGCCCGCAGG
TCCCTAGGGAGTTTATGAGGGGAATGCGCCCTGTTGCTGTAGTTTGGGGTTGTGGCAAGATACTTGTGTTTGTG
TTTCTTTCTTTTACATGACTGCCCTTGACATGATCGCTGTGTGCTTTGCGTTTTTCCATTTAGGAGGGTATTCTG
GGCCTTCTGCCAGGCAGCAGCCTCATGGGTGTGGCTTCTGTGGCTTTCAATTGAGTATCTTTGGCCCTTTTCA
CCTACTGCGACCAACCCACCTCATCCTGGCTCAGCCTGGTGATGGAGAAGTGCTGATGGTCTTGGTCCCAGCCAGG
GTCGTGGGGGCGAGCCACTCTCTCAAAGCATAGTCAATGGGTGTGATGAAAAAATACCAAATGTAAGAGAACCTCC
AAGTCAGGGCGCAGTGGCTCACCCCTGTAATCTCAGCACTTTGGGTGGCCAAGGCGGGCAGATGACTTGAGGTCA
GGAGTTTCGAGACCAGCCTGGCCAACATGGTGAAACCCGCTCTCTACTAAAAATACAAAAATTAGTCAGGTGTGGT
GGACGCCTGTGATCTCAATCTCAGTACTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCCAGGAGGTGTTGCA
GTGAACCAAGATCACACCACTGCACTCCAGCCTAGGCAACAGAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAG
AACTCCCAGGAGACAGCAGCCTAGTTTTTCAGTGTGAGCTTGTGCTTGTGAAAGCTAACCATGCTAACCACCAA
GGCAAAGCAGCACAGTGTGAATAGAACAGAGCGGGATCAAGAATTTACAGAAGACAGGTGAGTGGGGCCCTG
CACACACAGGGTGTGAGGAACACAGATGGGCGCCGAGAGGCCTGCCTTTTGCTGGCCAGGCTCACCCCCAC
CTTGGGCCTCACCTCCTCTAGGAAGCCTTCCAGCTACCCGAAGCTCAGGTGGCCTTCTTGCAGGTCCCCGTAGC
ACCTGAGCCTGTACCTTGGGTGGCACTTGTTATGCTATCCTGTGCTAGCCGTTTGTGCTCGTCTCGCTGTTAG
ATTGTGAGTTCCCATGGGCAGAGACCCACTGTCGTTCCTCGTGTGTCCCCAGCCCGGTCCCTGTCACATTTGTTA
AATGAAAGAACAATGAAGCCCAGTGTAACGTCAGTCCACAGAAATAGCCACAGCTTCCAGTGGTGGCCGTAGACT
TGGCTCGGAACCTAGTGGCACCAGAGTAAGTCTAGTCAGTTACAGTAAATCCACTGTGTGTGGAAGGCAGAAGC
TAGCGGTTGTATCCCAAGCATCTTTGTATTTGTCTTTATACTTTGCTGAATCTCTGAAATACCTATTACTGTA
TGTGGCTTTTCTAAATAAATGTATTGTGAACTAAAAAAAAAAAAAAAAA

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FIGURE 203

MSGFNFGGIGAPTGGFTFGTAKTATTTTPATGFSFSTSGTGGFNFGAPFQPATSTPSTGLFSLATQTPATQTTGFT
FGTATLASGGTGFSLGIGASKLNLSNTAATPAMANPSGFLGSSNLTNAISSVTISSQGTAPTGFVFGPSTTSVA
PATTSGGFSFTGGSTAQPSGFNIGSAGNSAQPTAPATLPFTPATPAATTAGATQPAAPTPTATITSTGPSLFI
ATAPTSSATTGLSLCTPVTTAGAPTAGTQGFSLKAPGAASGTSTTTSTAATATATTTTSSSTTGFA
LNKPLAPAGIPSNTAAAVTAPPGPGAAAGAAASSAMTYAQLES LINKWSLELEDQERHFLQQATQVNAWDRT
LIENGEKITSLHREVEKVKLDQKRLDQELDFILSQQKELEDLLSPLEELVKEQSGTIY LQHADEEREKTY
KLAENIDAQLKRMAQDLKDII EHLNTSGAPADTSDPLQQICKILNAHMDSLQWIDQNSALLQRKVEEVTKVCE
GRRKEQERSFRITFD

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FIGURE 204

ACTCCAGATATAGGATCACTCCATGCCATCAAGAAAGTTGATGCTATTGGGCCCATCTCAAGCTGATCTTGGCAC
CTCTCATGCTCTGCTCTCTTCAACCAGACCTCTACATTCCATTTTGGGAAGAAGACTAAAAATGGTGTTCCTAATG
TGGACACTGAAGAGACAAATCTTATCCTTTTAAACATAATCCTAATTTCCAAACTCCTTGGGGCTAGATGGTTT
CCTAAACTCTGCCCTGTGATGTCACTCTGGATGTTCCAAAGAACCATGTGATCGTGGACTGCACAGACAAGCAT
TTGACAGAAATTCCTGGAGGTATTCCCACGAACACCACGAACCTCACCTCACCATTAAACCACATACCAGACATC
TCCCCAGCGTCCTTTACAGACTGGACCATCTGGTAGAGATCGATTTTCAAGATGCAACTGTGTACCTATTCCACTG
GGGTCAAAAAACAACATGTGCATCAAGAGGCTGCAGATTAAACCCAGAAGCTTTAGTGGACTCACTTATTTAAAA
TCCCTTTACCTGGATGGAAACCAGCTACTAGAGATACCGCAGGGCCTCCCGCCTAGCTTACAGCTTCTCAGCCTT
GAGGCCAACAACATCTTTTCCATCAGAAAAGAGAACTCTAACAGAACTGGCCAACATAGAAATACTCTACCTGGGC
CAAACTGTTATTATCGAAATCCTTGTATGTTTCATATTCAATAGAGAAAGATGCCTTCTAAACTTGACAAAG
TTAAAAGTGCTCTCCCTGAAAGATAACAATGTACAGCCGTCCTACTGTTTTGCCATCTACTTTAACAGAACTA
TATCTCTACAACAACATGATTGCAAAAATCCAAGAAGATGATTTTAAATAACCTCAACCAATTACAAATCTTGAC
CTAAGTGGAAATTCGCTCGTTGTTATAATGCCCATTTCTTGTGCGCGTGTAATAAATAATTCTCCCTACAG
ATCCCTGTAAATGCTTTTGATGCGCTGACAGAATTAAAGTTTTACGTCTACACAGTAACTCTCTTCAGCATGTG
CCCCAAGATGGTTTAAAGAACATCAACAACTCCAGGAAGTGGATCTGTCCCAAACTTCTTGGCCAAAGAAAT
GGGGATGCTAAATTTCTGCATTTTCTCCCCAGCCTCATCCAATTGGATCTGTCTTTCAATTTTGAACTTCAGGTC
TATCGTGCATCTATGAATCTATCACAAGCATTTTCTTCACTGAAAAGCCTGAAAATTCTGCGGATCAGAGGATAT
GTCTTTAAAGAGTTGAAAAGCTTTAACTCTCGCCATTACATAATCTTCAAAATCTTGAAGTTCTTGATCTTGGC
ACTAATTTTATAAAAATTGCTAACCTCAGCATGTTTAAACAATTTAAAAGACTGAAAGTCATAGATCTTTCAGTG
AATAAAATATCACCTTCAGGAGATTCAAGTGAAGTTGGCTTCTGCTCAAATGCCAGAATCTCTGTAGAAAAGTTAT
GAACCCAGGTCTTGAAACAATTACATTATTTTCAAGATATGATAAGTATGCAAGGAGTTGCAGATTCAAAAACAAA
GAGGCTTCTTTTATGTCTGTAAATGAAAAGCTGCTACAAGTATGGGCAGACCTTGGATCTAAGTAAAAATAGTATA
TTTTTGTCAAGTCTCTGATTTTTCAGCATCTTTCTTCTCAAATGCCTGAATCTGTCAGGAAATCTCATTAGC
CAAATCTTAATGGCAGTGAATTCACACTTTAGCAGAGCTGAGATATTTGGACTTCTCCAACAACCGGCTTGAT
TTACTCCATTCAACAGCATTTTGAAGAGCTTCAAACTGGAAGTTCTGGATATAAGCAGTAATAGCCATTATTTT
CAATCAGAAGGAATTACTCATATGCTAACTTTACCAAGAACCTAAAGTTCTGCAGAACTGATGATGAACGAC
AATGACATCTCTTCTCCACCAGCAGGACCATGGAGAGTGAGTCTCTTAGAACTCTGGAATTCAGAGGAAATCAC
TTAGATGTTTTATGGAGAGAAGGTGATAACAGATACTTACAATTATTCAAGAATCTGCTAAAATTAGAGGAATTA
GACATCTCTAAAAATTCCTAAGTTTCTTGCTTCTGGAGTTTTTGATGGTATGCCTCCAAATCTAAAGAATCTC
TCTTTGGCCAAAAATGGGCTCAAATCTTTCAGTTGGAAGAACTCCAGTGTCTAAAGAACCTGGAACCTTTGGAC
CTCAGCCACAACCAACTGACCACTGTCCCTGAGAGATTATCCAACGTCTCAGAAAGCCTCAAGAATCTGATTCTT
AAGAATAATCAAATCAGGAGTCTGACGAAGTATTTCTACAAGATGCCTTCCAGTTGCGATATCTGGATCTCAGC
TCAAATAAAATCCAGATGATCCAAAAGACCAGCTTCCAGAAAATGTCTCAACAATCTGAAGATGTTGCTTTTG
CATCATAATCGGTTTTCTGTGCACCTGTGATGCTGTGTGGTTTTGTCTGGTGGGTTAACCATACGGAGGTGACTATT
CCTTACCTGGCCACAGATGTGACTTGTGTGGGGCCAGGAGCACACAAGGGCCAAAGTGTGATCTCCCTGGATCTG
TACACCTGTGAGTTAGATCTGACTAACCTGATTCTGTTCTCACTTTCCATATCTGTATCTCTTTCTCATGGTG
ATGATGACAGCAAGTCACCTCTATTTCTGGGATGTGTGGTATATTTACCATTTCTGTAAGGCCAAGATAAAGGGG
TATCAGCGTCTAATATCACCAGACTGTTGCTATGATGCTTTTATTGTGTATGACACTAAAGACCCAGCTGTGACC
GAGTGGGTTTTGGCTGAGCTGGTGGCCAACTGGAAGACCCAAGAGAGAAACATTTTAAATTTATGTCTCGAGGAA
AGGGACTGGTTACCAGGGCAGCCAGTTCTGGAAAACCTTTCCAGAGCATACAGCTTAGCAAAAAGACAGTGTTT
GTGATGACAGACAAGTATGCAAAGACTGAAAATTTTAAAGATAGCATTTTACTTGTCCCATCAGAGGCTCATGGAT
GAAAAAGTTGATGTGATTATCTTGATATTTCTTGAGAAGCCCTTTCAGAAGTCCAAGTTTCTCCAGCTCCGGAAA
AGGCTCTGTGGGAGTTCTGTCTTGTAGTGGCCAACAAACCCGCAAGCTCACCCATACTTCTGGCAGTGTCTAAAG
AACGCCCTGGCCACAGACAATCATGTGGCCTATAGTCAGGTGTTCAAGGAAACGGTCTAGCCCTTCTTTGCAAAA
CACAATGCCTAGTTTACCAAGGAGAGGCTGGCTGTTTAAATTGTTTTCATATATATCACACCAAAAGCGTGT
TTGAAATTTCTTCAAGAAATGAGATTGCCCATATTTTCAGGGAG

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FIGURE 205

MVFPMWTLKRQILILFNIILISKLLGARWFPKTLPCDVTLDPKPNHVIVDCTDKHLTEIPGGIPTNTTNLTLTIN
HIPDISPASFHRLDHLVEIDFRCNCVPIPLGSKNNMCIKRLQIKPRSFSGLTLYKSLYLDGNQLEIPQGLPPSL
QLLSLEANNIFSIRKENLTELANIEILYLGQNCYYRNPCYVSYSIEKDAFLNLTKLVLSLKDNNVTAVPTVLP
TLTELYLYNNMIAKIQEDDFNNLNQLQILDLSGNCPRCYNAPFPCAPCKNNSPLQIPVNAFDALTELKVLRLHSN
SLQHVPWRWFKNINKLQELDLSQNFLAKEIGDAKFLHFLPSLIQLDLSFNFELOVYRASMNLSQAFSSLKSLKIL
RIRGYVFKELKSFNLSPLHNLQNEVLDLGTNFIKIANLSMFKQFKRLKVIDLSVNKISPSGDSSEVGFCSNART
SVESYEPQVLEQLHYFRYDKYARSCRFKNKEASFMSVNESCYKYGQTLDSLKNSIFFVKSSDFQHLSFLKCLNLS
GNLISQTLNGSEFQPLAELRYLDFSNNRLDLLHSTAFEELHKLEVLDISSNSHYFQSEGITHMLNFTKNLKVLOK
LMMNDNDISSSTSRTMESESLRTEFRGNHLDVLWREGDNRYLQLFKNLLKLEELDISKNLSLFLPSGVFDGMPP
NLKNLSLAKNGLKSFSWKKLQCLNLETDLDSHNQLTTVPERLSNCSRLKNLILKNNQIRSLTKYFLQDAFQLR
YLDLSSNKIQMIQKTSFPENVLNNLKMLLLHNRF LCTCDAVWFVWWVNHTEVTIPYLATDVTCVGPGAHKGQSV
ISLDLYTCELDLTNLILFSLISVSLFLMVMMTASHLYFWDVWYIYHFCKAKIKGYQRLISPDCCYDAFIVYDTK
DPAVTEWVLAELVAKLEDPREKHFNLCLEERDWLPGQPVLENLSQSIQLSKKTVFVMTDKYAKTENFKIAFYLSH
QRLMDEKVDVILIFLEKPFQKSKFLQLRKRLCGSSVLEWPTNPQAHFYFWQCLKNALATDNHVAYSQVFKETV

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FIGURE 206

GGCACGAGGGTTCCGGTGGGCTCCAGGCGTCGCG**ATCG**AGGAGAGCGGGTACGAGTCGGTGCTCTGTGTCAAGCCT
GACGTCCACGTCTACCGCATCCCTCCGCGGGCTACCAACCGTGGCTACAGGGCTGCGGAGTGGCAGCTGGACCAG
CCATCATGGAGTGGCCGGCTGAGGATCACTGCAAAGGGACAGATGGCCTACATCAAGCTGGAGGACAGGACGTCA
GGGGAGCTCTTTGCTCAGGCCCCGGTGGATCAGTTTCCTGGCACAGCTGTGGAGAGTGTGACGGATTCCAGCAGG
TACTTCGTGATCCGCATCGAAGATGGAATGGGCGACGGGCGTTTATTGGAATTGGCTTCGGGGACCGAGGTGAT
GCCTTTGACTTCAATGTTGCATTGCAGGACCATTTCAAGTGGGTGAAACAGCAGTGTGAATTTGCAAAACAAGCC
CAGAACCCAGACCAAGGCCCTAAACTGGACCTGGGCTTCAAGGAGGGCCAGACCATCAAGCTCAACATCGCAAAC
ATGAAGAAGAAGGAAGGAGCAGCTGGGAATCCCCGAGTCCGGCCTGCCAGCACAGGAGGGCTGAGCCTGCTTCCC
CCTCCCCCAGGGGGGAAAACCTCCACCCTGATCCCTCCCCCTGGGGAGCAGTTGGCTGTGGGGGGATCCCTCGTC
CAGCCAGCAGTTGCTCCCAGTTCAGGAGGTGCTCCGTGTACCCTGGCCACAGCCCAATCCTGCCACTGCTGACATC
TGGGGAGACTTTACCAAATCTACAGGATCAACTTCCAGCCAGACCCAGCCAGGCACAGGCTGGGTCCAGTTCT**TGA**

CCTGAGCACGGTTTTTCTCATGTGACTTCTGGGAAGGCGCTCCCTCATCTGGGCCAAAGGAAGGAGGACGAAGC
CCTCCTCAGCTGGCCTGTGTTTGGGGCATGAATCTCTCCTCTCCTCCTGTCTGGCTCTGTTGACAAACCGGGCA
TGTTTGGCAGTAAATTGGCACCGTGTACACTGTTTCCTGGGATTCAAGTATGCAACCAGAACACAGGAGAAGAA
AAGCTCCAGGATCCCTGTCCCCTCTGTCTCTTGATGTGAGAGAGACTCTGAGACTTCTTCCATCGCAATGACC
TGTATTAAACACAAGCCCCCAAGCAAAAGAAGAGGTTGAGTTTGTGTCAGGATTGAGATCAGCCCTTCCCAGG
GTCTGCAGGTGTACATGATCACAGTTCAGCGGGAGGCTTTCGTACCCACACTGGCTGTAGCCACTTCAGTCCA
TCTGCCCTCCAGAGGAGGGGTTTTCTTCTGATTTTGTAGAGGTTTAGAGGCTGCAGCTTGAGCTACAATCAGGAG
GGAAATTGGAAGGATTAGCAGCTTTTAAAAATGTTTAAATATTTTGCTTTGCTAATGTGCTGATCCGCACTAACT
CATCTTTGCAAAAGGAACTGCTCCCTCGGCGTGCCCCAGCTGGGGCCTCTGAAGGGATTCTCACTGTGGGCAGC
TGCCCTGAGCTTCAGGCAGCAGTGTTCATCTCTGGCCAGTTGTCTGGTTTCCATGTATTCTAGGCCAGGTAGGCA
ACACAGAGCCAAGGCGGGTGCTGGAAGCCAGACGGAACAGTGTGGGGCAGGAAGGTGGATGCTGTTGTATGGA
GCTGTGGGAGTTGGCACTCTGTCTGCTGGTGGCCCTCTCGGCTCACATGTTACAGTGCAGCTCCTGGCAGACTT
GGGTTTTCTCTTTGGTGGTTTTCTAAAGTGCCTTATCTGCAAACTTCTTTTCTCCTTCAGGAAGTGTGAATGG
CTAGAAGAAGGAGCTCAGTAACTAGAAGTCCAGGGTTGCTTGGTTTACTGGTTTATAAGAAATCTGAAAGCACC
TCTGACATTCTTTTATTAATCACCTCTCAGTTGAAAGATTTCTTCTTTGAAAGGTCAAGACCGTGAAGTAAA
AAAGTGTGGCCTTTTTGCGGGACCAGATTTTTAAGATAAAATAAATATTTTACTTCTGTCAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 207

MEESGYESVLCVKPDVHVYRIPPRATNRYRAAEWQLDQPSWSGRLRITAKGQMAYIKLEDRTSGELFAQAPVDQ
FPGTAVESVTDSSRYFVIRIEDGNRRAFIGIGFGDRGDAFDNFVALQDHFkwvkqqceFAKQAQNPDQGPKLDL
GFKEGQTIKLNIANMKKKEGAAGNPRVRPASTGGLSLLPPPPGGKTSTLIPPPGEQLAVGGSLVQPAVAPSSGGA
PVPWPQPNPATADIWGDFTKSTGSTSSQTQPGTGWVQF

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FIGURE 208

AGAGAGCTGTTTACTAGGCACGACTGCGAAGGCAAGGGGGCACCAGCTCAGGACTGCATCTGCCTGCCATTTCCC
TTCCACTCCTCCTTTCTGGAGTCTGACATTAGAAAAGCCAGCGAGAAGGAAGATTCAAACAACCAACCCTGATTTC
CTGCTTCTCCTTTTCATGAGTGTTCCCTGTGGTCTCTGCACCTCCTTTCTGTCCCCCGGCAGAGGGCAGTAGAGAT
GGCCGGCCCCAAGGCCTCGGTGGCGCGACCAGCTGCTGTTTCATGAGCATCATAGTCCTCGTGATTGTGGTTCATCTG
CCTGATGTTATACGCTCTTCTCTGGGAGGCTGGCAACCTCACTGACCTGCCCCAACCTGAGAATCGGCTTCTATAA
CTTCTGCCTGTGGAATGAGGACACCAGCACCTACAGTGTCACCAAGTTCCCTGAGCTGGAAGCCCTGGGGGTGCC
TCGGGTGGGCTGGGCTGGCCAGGCTTGGCGTGTACGGGTCCCTGGTCCCTCACCTCTTTGCCCCCAGCCTCT
CCTCCTAGCCCAGTGCAACAGTGATGAGAGAGCGTGGCGGCTGGCAGTGGGCTTCCTGGCTGTGTCTCTGTGCT
GCTGGCAGGCGGCCTGGGCCTCTTCTCTCCTATGTGTGGAAGTGGGTCAGGCTCTCCCTCCCGGGGCCTGGGTT
TCTAGCTCTGGGCAGCGCCCAGGCCTTACTCATCCCTTTGCTTATAGCCATGGCTGTGTTCCCTCTGAGGGCTGA
GAGGGCTGAGAGCAAGCTTGAGAGCTGCTTAAAGGCTTACGTGATTGCAAGGGTTCAGTTCCAACCATAGTCAGAG
GTGGCACATCTGCTCAGCCATCTCATTTTACAGCTAACGCTGATCTCCAGCTCCAGCGATGGAACCCACTACAGA
GGAGGTGGGGCCCCCTGTGTCAAAGAGGCCGAGGGGCAGCAAGGGCAGCCAGGGCACCTGTGACTTCTTAGTACAA
GATTGTCTGTCTTCAGGACTTCCAAGGCTCCCAAAGACTCCCTAAACCATGCAGCTCATTGTCACACCAATTCC
TGCTTTAATTAATGGATCTGAGCAAATCTTCTCTAGCTTCAGGAGGGTGGGGAGGGAGTGATTGCCGTCTATGGG
GCCAGACTTCCAGGCTGATTTGCCAAATGCCAAAATGAAACCTAGCAAAGAACTTACGGCAACAAACGAGGACAT
TAAAAGAGCGAGCACCTCAGTGCTCTCTGGGGACATGGTTAAGGAGCTTCCACTCAGCCCACCATAGTGAGTGGGC
CGCCATAAGCCATCACTGGAACCTCAACCCAGAGGTCCAGGAGTGATCTCTGAGTGACTCAACAAAGACAGGAC
ACATGGGGTACAAAGACAAGGCTTGACTGCTTCAAAGCTTCCCTGGACCTGAAGCCAGACAGGGCAGAGGCGTCC
GCTGACAAATCACTCCCATGATGAGACCCTGGAGGACTCCAAATCTCGCTGTGAACAGGACTGGACGGTTGCGC
ACAAACAAACGCTGCCACCCTCCACTTCCCAACCCAGAAGCTTGAAAGACATTAGCACAACTTACGCATTGGGGA
ATTGTGTGTATTTTCTAGCACTTGTGTATTGAAAACCTGTATGGCAGTGATTATTTCATATATTCCTGTCCAAA
GCCCACTGAAAACAGAGGCAGAGACATGT

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FIGURE 209

MAGPRPRWRDQLLFMSIIVLVIVVICLMLYALLWEAGNLTDLPNLRIGFYNFCLWNEDTSTLQCHQFPELEALGV
PRVGLGLARLGVYGSVLTLFAPQPLLLAQCNSDERAWRLAVGFLAVSSVLLAGGLGLFLSYVWKWVRLSLPGPG
FLALGSAQALLILLIAMAVFPLRAERAESKLESC

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FIGURE 210

GCACGAGCGATGTCGCTCGTGCTGCTAAGCCTGGCCGCGCTGTGCAGGAGCGCCGTACCCCGAGAGCCGACCGTT
CAATGTGGCTCTGAAACTGGGCCATCTCCAGAGTGGATGCTACAACATGATCTAATCCCCGGAGACTTGAGGGAC
CTCCGAGTAGAACCTGTTACAAC TAGTGTGCAACAGGGGACTATTCAATTTTGATGAATGTAAGCTGGGTACTC
CGGGCAGATGCCAGCATCCGCTTGTTGAAGGCCACCAAGATTTGTGTGACGGGC AAAAGCAACTTCCAGTCCTAC
AGCTGTGTGAGGTGCAATTACACAGAGGCCTTCCAGACTCAGACCAGACCCTCTGGTGGTAAATGGACATTTTCC
TACATCGGCTTCCCTGTAGAGCTGAACACAGTCTATTTTCATTGGGGCCCAT AATATTCCTAATGCAAATATGAAT
GAAGATGGCCCTTCCATGTCTGTGAATTTACCTCACCAGGCTGCCTAGACCACATAATGAAATATAAAAAAAG
TGTGTCAAGGCCGGAAGCCTGTGGGATCCGAACATCACTGCTTGTAAGAAGAATGAGGAGACAGTAGAAGTGAAC
TTCACAACCACTCCCCTGGGAAACAGATACATGGCTCTTATCCAACACAGCACTATCATCGGGTTTTCTCAGGTG
TTTGAGCCACACCAGAAGAAACAAACGCGAGCTTCAGTGGTGATTCCAGTGACTGGGGATAGTGAAGGTGCTACG
GTGCAGCTGACTCCATATTTTCTACTTGTGGCAGCGACTGCATCCGACATAAAGGAACAGTTGTGCTCTGCCCA
CAAACAGGCGTCCCTTTCCCTCTGGATAACAACAAAAGCAAGCCGGGAGGCTGGCTGCCTCTCCTCTGCTGTCT
CTGCTGGTGGCCACATGGGTGCTGGTGGCAGGGATCTATCTAATGTGGAGGCACGAAAGGATCAAGAAGACTTCC
TTTTCTACCACCACACTACTGCCCCCATTAAGGTTCCTGTGGTTTACCCATCTGAAATATGTTTCCATCACACA
ATTTGTTACTTCACTGAATTTCTTCAAACCATTTGCAGAAGTGAGGTTCATCCTTGAAAAGTGGCAGAAAAAGAAA
ATAGCAGAGATGGGTCCAGTGCAGTGGCTTGCCACTCAAAGAAGGCAGCAGACAAAGTCGTCTTCCTTCTTTCC
AATGACGTCAACAGTGTGTGCGATGGTACCTGTGGCAAGAGCGAGGGCAGTCCCAGTGAGAACTCTCAAGACTCT
TCCCCTTGCCTTTAACCTTTTCTGCAGTGATCTAAGAAGCCAGATTTCATCTGCACAAATACGTGGTGGTCTACTT
TAGAGAGATTGATACAAAAGACGATTACAATGCTCTCAGTGTCTGCCCCAAGTACCACCTCATGAAGGATGCCAC
TGCTTTCTGTGCAGAACTTCTCCATGTCAAGTAGCAGGTGTGAGCAGGAAAAAGATCACAAGCCTGCCACGATGG
CTGCTGCTCCTTGTAGCCCAACCATGAGAAGCAAGAGACCTTAAAGGCTTCCTATCCCACCAATTACAGGGAAAA
AACGTGTGATGATCCTGAAGCTTACTATGCAGCCTACAAACAGCCTTAGTAATTAAAACATTTTATACCAATAAA
ATTTTCAAATATTGCTAACTAATGTAGCATTAAC TAACGATTGGAACTACATTTACAACCTCAAAGCTGTTTTA
TACATAGAAATCAATTACAGTTTTAATTGAAAAC TATAACCATTTTGATAATGCAACAATAAAGCATCTTCAGCC
AAAAAAAAAAAAAAAAA

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FIGURE 211

MSLVLLSLAALCRSAVPREPTVQCGSETGPSPEWMLQHDLI PGDLRLRVEPVTTSVATGDYSILMNVSWVLRAD
ASIRLLKATKICVTGKSNFQSYSCVRCNYTEAFQTQTRPSGGKWTF SYIGFPVELNTVYFIGAHNIPNANMNEDG
PSMSVNFTSPGCLDHIMKYKKKCVKAGSLWDPNITACKKNEETVEVNFTTTPLGNRYMALIQHSTIIIGFSQVFEP
HQKKQTRASVVIPVTGDSEGATVQLTPYFPTCGSDCIRHKGTVVLCPTGVPFPLDNNKSKPGGWLPLLLLSLLV
ATWVLVAGIYLMWRHERIKKTSFSTTTLLPPIKVLVVYPSEICFHHTICYFTEFLQNHCRSEVILEKWQKKKIAE
MGPVQWLATQKKAADKVVFLLSNDVNSVCDGTCGKSEGSPSENSQDSSPCL

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FIGURE 212

GCACGAGTTGGGAGGTGTAGCGCGGCTCTGAACGCGCTGAGGGCCGTTGAGTGTGCGAGGCGGCGAGGGCGCGAG
TGAGGAGCAGACCCAGGCATCGCGCGCCGAGAAGGCCGGGCGTCCCCACACTGAAGGTCCGGAAAGGCGACTTCC
GGGGGCTTTGGCACCTGGCGGACCCTCCCGGAGCGTCGGCACCTGAACGCGAGGCGCTCCATTGCGCGTGC GCGT
TGAGGGGCTTCCCGCACCTGATCGCGAGACCCCAACGGCTGGTGGCGTCGCCTGCGCGTCTCGGCTGAGCTGGCC
ATGGCGCAGCTGTGCGGGCTGAGGCGGAGCCGGGCGTTTCTCGCCCTGCTGGGATCGCTGCTCCTCTCTGGGGTC
CTGGCGGCCGACCGAGAACGCAGCATCCACGACTTCTGCCTGGTGTGCAAGGTGGTGGGCAGATGCCGGGCCTCC
ATGCCTAGGTGGTGGTACAATGTCACTGACGGATCCTGCCAGCTGTTTGTGTATGGGGGCTGTGACGGAAACAGC
AATAATTACCTGACCAAGGAGGAGTGCCTCAAGAAATGTGCCACTGTACAGAGAATGCCACGGGTGACCTGGCC
ACCAGCAGGAATGCAGCGGATTCTCTGTCCCAAGTGCTCCCAGAAGGCAGGATTCTGAAGACCACTCCAGCGAT
ATGTTCAACTATGAAGAATACTGCACCGCCAACGCAGTCACTGGGCCTTGCCGTGCATCCTTCCCACGCTGGTAC
TTTGACGTGGAGAGGAACCTCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCT
GAGGAGGCCTGCATGCTCCGCTGCTTCCGCCAGCAGGAGAATCCTCCCCTGCCCTTGGCTCAAAGGTGGTGGTT
CTGGCGGGGCTGTTCTGTATGGTGTGATCCTCTTCTGGGAGCCTCCATGGTCTACCTGATCCGGGTGGCACGG
AGGAACCAGGAGCGTGCCCTGCGCACCGTCTGGAGCTCCGGAGATGACAAGGAGCAGCTGGTGAAGAACACATAT
GTCTGTGTACCGCCCTGTGCGCAAGAGGACTGGGGAAGGGAGGGGAGACTATGTGTGAGCTTTTTTTAAATAGAG
GGATTGACTCGGATTTGAGTGATCATTAGGGCTGAGGTCTGTTTCTCTGGGAGGTAGGACGGCTGCTTCCTGGTC
TGGCAGGGATGGGTTTGCTTTGGAAATCCTCTAGGAGGCTCCTCCTCGCATGGCCTGCAGTCTGGCAGCAGCCCC
GAGTTGTTTCCTCGCTGATCGATTTCTTTCTCCAGGTAGAGTTTCTTTGCTTATGTTGAATTCCATTGCCTCC
TTTTCTCXATCACAGAAGTGATGTTGGAATCGTTTCTTTGTTTGTCTGATTTATGGTTTTTTTAAAGTATAAACA
AAAGTTTTTTATTAGCATTCTGAAAGAAGGAAAGTAAAATGTACAAGTTTAATAAAAAGGGGCCTTCCCCTTTAG
AATAAATTTCCAGCATGTTGCTTTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 213

MAQLCGLRRSRAFLALLGSLLLSGVLAADRERSIHDFCLVSKVVGRCRASMPRWWYNVTDGSCQLFVYGGCDGNS
NNYLTKEECLKKCATVTENATGDLATSRNAADSSVPSAPRRQDSEDHSSDMFNYYEYCTANAVTGPCRASFPRWY
FDVERNSCNNFIYGGCRGNKNSYRSEEACMLRCFRQQENPPLPLGSKVVVLAGLFVMVLILFLGASMVYLIRVAR
RNQERALRTVWSSGDDKEQLVKNTYVL

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FIGURE 214

CCGAGCGCCAGCGCGGGGAACCGGGAAAAGGAAACCGTGTGTGTACGTAAGATTCAGGAAACGAAACCAGGAGC
CGCGGGTGTGTGGCGCAAAGGTTACTCCCAGACCCTTTTCCGGCTGACTTCTGAGAAGGTTGCGCACAGCTGTGCC
CGGCAGTCTAGAGGCGCAGAAGAGGAAGCCATCGCCTGGCCCCGGCTCTCTGGACCTTGTCTCGCTCGGGAGCGG
AAACAGCGGCAGCCAGAGAAGTGTTTTAATCATGGACAAACAAAACCTCACAGATGAATGCTTCTCACCCGGAAAC
AAACTTGCCAGTTGGGTATCCTCCTCAGTATCCACCGACAGCATTCCAAGGACCTCCAGGATATAGTGGCTACCC
TGGGCCCCAGGTCAGCTACCCACCCCCACCAGCCGGCCATTTCAGGTCTTGGCCCAGCTGGCTTTTCTGTCCCAA
TCAGCCAGTGTATAATCAGCCAGTATATAATCAGCCAGTTGGAGCTGCAGGGGTACCATGGATGCCAGCGCCACA
GCTTCCATTAACTGTCCACCTGGATTAGAATATTTAAGTCAGATAGATCAGATACTGATTTCATCAGCAAATTGA
ACTTCTGGAAGTTTTAACAGTTTTTGAACTAATAACAAATATGAAATTAAGAACAGCTTTGGACAGAGGGTTTA
CTTTGCAGCGGAAGATACTGATTGCTGTACCCGAAATTGCTGTGGGCCATCTAGACCTTTTACCTTGAGGATTAT
TGATAATATGGGTCAAGAAGTCATAACTCTGGAGAGACCACTAAGATGTAGCAGCTGTTGTTGTCCCTGCTGCCT
TCAGGAGATAGAAATCCAAGCTCCTCCTGGTGTACCAATAGGTTATGTTATTCAGACTTGGCACCCATGTCTACC
AAAGTTTACAATTCAAATGAGAAAAGAGAGGATGTACTAAAAATAAGTGGTCCATGTGTTGTGTGCAGCTGTTG
TGGAGATGTTGATTTTGAGATTAAATCTCTTGATGAACAGTGTGTGGTTGGCAAATTTCCAAGCACTGGACTGG
AATTTTGAGAGAGGCATTTACAGACGCTGATAACTTTGGAATCCAGTTCCTTTAGACCTTGATGTTAAATGAA
AGCTGTAATGATTGGTGCCTGTTTCCTCATTGACTTCATGTTTTTTGAAAGCACTGGCAGCCAGGAACAAAAATC
AGGAGTGTGGTTAGTGGATTAGTGAAAGTCTCCTCAGGAAATCTGAAGTCTGTATATTGATTGAGACTATCTAAAC
TCATACCTGTATGAATTAAGCTGTAAGGCCTGTAGCTCTGGTTGTATACTTTTGCTTTTCAAATTATAGTTTATC
TTCTGTATAACTGATTTATAAAGGTTTTTGACATTTTTTAATACTCATTGTCAATTTGAGAAAAAGGACATATG
AGTTTTTGCATTTATTAATGAACTTCCTTTGAAAACTGCTTTGAATTATGATCTCTGATTTCATTGTCCATTTT
ACTACCAAATATTAATAAGGCCTTATTAATTTTTATATAAATTATATCTTGTCTTATTAATCTAGTTACAATT
TATTTTCATGCATAAGAGCTAATGTTATTTTGCAAATGCCATATATTCAAAAAAGCTCAAAGATAATTTTCTTTAC
TATTATGTTCAAATAATATTCAATATGCATATTATCTTTAAAAAGTTAAATGTTTTTTTTAATCTTCAAGAAATCA
TGCTACACTTAACTTCTCCTAGAAGCTAATCTATAACCATAATATTTTCATATTCACAAGATATTAAATTACCAAT
TTTCAAATTATTGTTAGTAAAGAACAAAATGATTCTCTCCCAAAGAAAGACACATTTTAAATACTCCTTCACTCT
AAAACCTCTGGTATTATAACTTTTGAAAGTTAATATTTCTACATGAAATGTTTAGCTCTTACACTCTATCCTTCCT
AGAAAAATGGTAATTGAGATTACTCAGATATTAATTAATAACAATATCATATATATATTACAGAGTATAAACCTA
AATAATGATCTATTAGATTCAAATATTTGAAATAAAAACCTTGATTTTTTTGT

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FIGURE 215

MDKQNSQMNASHPETNLPVGYPPOYPPTAFQGPPGYSGYPGPQVSYP PPPAGHSGPGPAGFPVPNQPVYNQPVYN
QPVGAAGVPWMPAPQPPLNCPGLEYSQIDQILIHQQIELLEVLTFETNNKYEIKNSFGQRVYFAAEDTDCCT
RNCCGPSRPFTLRIIDNMGQEVITLERPLRCSSCCCPCLQEIEIQAPPGVPIGYVIQTWHPCLPKFTIQNEKRE
DVLKISGPCVVCSCCGDVDFEIKSLDEQCVVGKISKHWTGILREAFTDADNFGIQFPLDLVDVMMKAVMIGACFLI
DFMFFESTGSQE QKSGVW

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FIGURE 216A

AGAGCTTCAGTCTGAGTCCCAGCGCCGAGAGCGTGTCTGACCGGTTGGACCCCTACAGCAGCGGGCGGCTCCT
CGTCGTCGTCGGAAGAGCTCGAGGCCGACGCAGCCTCGGCCCGACGGGGTCCCGGGCCAGCCCCGCCGTCCCG
GCCACCCCGCGCAGCCCCCTCCCGCTTCCCAGACGGCTTCTCGCCTCAGCCGCAGCAGAAAGCCCCGAGGGCCA
TTGACAGCCCGGGCGGGCGCGTCCGCGAGGGGTCTGTGCGAGGAGAAGGCAGCGGCAGCCGTGGCCCCGGGAGGCC
TCCAGTCTACCCCCGGGAGGAGCGGGGTGACCGCGGAGAAGGCAGCCTCCGCCGCCCCCGCCGCCACCCTGTACG
TGCAGCTCCACGGAGAGACCACCCGGCGCTTGGAGGCGGAGGAGAAGCCATTGCAGATCCAAAATGACTACCTCT
TCCAACTGGGATTGGGGAGCTGTGGAGGTTGCAGGAGGAAGGCATGGACTCGGAGATTGGCTGCCTCATCCGCT
TCTATGCAGGAAAACCTCACAGCACGGGTAGCTCTGAACGGATTTCAGCTCTCAGGAATGTATAATGTCCGTAAAG
GCAAGATGCAGTTGCCAGTGAACCGATGGACAAGACGCCAAGTCATCCTATGTGGGACCTGCCTGATAGTATCAT
CTGTGAAAGACAGCTTGACCGGAAAGATGCATGTTCTGCCACTAATTGGTGGAAAAGTAGAAGAAGTGAAAAAGC
ACCAACACTGTTTAGCATTAGCTCCTCTGGACCCCAAAGCCAGACTTACTACATTTGCTTTGATACTTTCACAG
AATACTTAAGGTGGCTGCGACAAGTCTCCAAGTTGCATCCCAGCGCATTAGCTCAGTGGACCTCTCGTGTGTGA
GCCTGGAACATCTGCCTGCCAACCTCTTCTACAGCCAAGACCTCACTCATCTCAATTTAAAAACAAAACCTTCCTAA
GGCAGAACCCTAGCCTTCCAGCTGCCAGGGGGCTTAATGAACTGCAAAGGTTACCAAGTTGAAGAGTCTTAACC
TTTCCAATAATCATTTAGGGGACTTCCCTCTGGCAGTCTGCAGTATTCCAACCCTGGCAGAGCTGAACGTGTCT
GCAATGCCCTGCGATCAGTCCCGGCAGCCGTTGGAGTGATGCACAACCTACAGACATTTTTGTTGGATGGAACT
TTCTCCAATCCCTTCTGTGAGTTGGAGAACATGAAGCAGCTTAGTTATCTGGGTCTTTCTTTCAATGAATTTA
CTGACATTCCCGAAGTATTGGAGAAATTGACTGCTGTGGATAAACTTTGTATGTCTGGAACTGTGTGGAGACCC
TTAGGCTACAGGCTTTAAGAAAAATGCCTCACATTAACATGTGGATCTAAGGTTGAACGTAATTAGGAAGCTGA
TAGCAGATGAAGTGGACTTTCTACAGCATGTTACTCAGCTTGACCTACGAGACAATAAGCTTGGTGATCTAGATG
CTATGATTTTCAACAACATTGAAGTTTACTGTGAAAGGAATCAACTGGTCACATTAGACATCTGTGGCTATT
TCCTAAAAGCGCTCTATGCCTCTTCTAATGAACTTGTTCAACTTGATGTTTACCCAGTTCCAAATTATCTGTCCT
ACATGGATGTTTCAAGGAACCGCTTAGAAAATGTGCCTGAGTGGGTATGTGAAAGCCGAAAGCTAGAAGTTTGG
ATATTGGCCATAATCAAATATGTGAACTTCTGCCCCGCTTATTTTGTAAATAGCAGTCTCCGGAACCTACTGGCAG
GACACAACCAGTTGGCAAGGCTGCCTGAAAGGCTAGAAAGAACCTCGGTGGAGGTCTTGGATGTGCAACACAACC
AGCTCCTTGAGCTCCACCTAACCTTCTGATGAAGGCTGACAGCCTGAGATTCTGAACGCCTCTGCGAACAAAC
TGGAAGCCCTTCTCCAGCCACGCTTTCGGAAGAGACAAACAGTATCTTACAAGAGTTGTATTTGACAAATAACA
GCCTCACAGACAAATGTGTGCCCTTGTTAACGGGACACCCCCATTTGAAGATCCTTCACATGGCCTATAACCGAC
TTCAGAGTTTTCCAGCAAGTAAATGGCGAACTGGAGGAACCTGAAGAAATTGATCTCAGTGGGAATAAGCTGA
AAGCCATCCCAACAACGATCATGAATTGCAGCCGCATGCACACCGTGATTGCTCACTCCAACCTGCATCGAGGTCT
TTCCCGAAGTTATGCAGCTCCCAGAGATCAAGTGTGTGGACCTGAGCTGTAATGAGCTAAGTGAAGTCACATTAC
CAGAAAACCTGCCTCCCAAACCTGCAGGAGCTAGACCTGACTGGAAACCCGCGCCTTGTCTTGTATCAGAAAACCC
TGGAACCTACTGAATAATATCCGCTGTTTCAAGATTGATCAGCCTTCTACAGGAGACGCTTCCGGAGCCCCAGCTG
TATGGAGTCATGGTTACTGAAAGCTTCGGGGGTAAAAACAAGTTGTGTGTGTCGAGCCCTGTGGTGAATAACT
TCTGTGACAACCGCGAAGCCCTGTATGGTGTGTTGACGGAGACCGGAATGTGGAGGTGCCCTACCTTCTCCAGT
GCACTATGAGTGACATTTTGGCTGAAGAGCTGCAAAAAACAAAAACGAAGAAGAATACATGGTCAATACATTCA
TTGTCATGCAAAGGAACTTGAACTGCTGGGCAGAAGCTTGGTGGTGCCGCTGTCTTTGTCTATATCAAGCATG
ACCCTGTGGATCCAGGAGGATCCTTCACCTTGACCTCTGCTAATGTGGGCAAGTGCCAAACAGTTCTCTGTGCAA
ATGGAAGCCGCTGCCTCTGTCCAGATCTTACATCATGAGCTGTGAAGAAGAGCTGAAGAGGATTAAACAGCACA
AGGCCATTATCACTGAGGATGGCAAGGTGAACGGAGTGACTGAGTCCACGCGCATCCTGGGCTACACCTTCTCC
ATCCAGTGTGGTGCTCGCCCCACGTGCAGTCCGTGCTCCTGACTCCCCAGGATGAGTTCTTTCATCCTAGGCA
GTAAGGGGTTGTGGGACAGCCTGTCCGTGAGGAGGCCGTGGAAGCCGTGCGCAACGTGCCCCGATGCCCTGGCTG
CTGCCAAGAAGCTGTGTACCCTGGCCCAGAGCTACGGCTGCCACGACAGCATCAGCGCTGTGGTGGTGCAGCTCA
GTGTCACTGAGGACAGCTTCTGTCTGCTGCGAGCTCAGCGCCGTTGGGGCTGTGCCACCACCCAGTCTTGGCATCT
TTCTCCCTCAGTGAACATGGTGATCAAGGATCGGCCCTCAGATGGGCTGGGCGTGCCGTCTCCAGCAGCGGCA
TGGCTTCCGAGATTAGCAGTGAGCTCTCCACTTCTGAGATGAGCAGCGAGGTGGGGTCAACAGCCTCCGATGAGC
CCCCGCCCCGAGCCCTAAGCGAGAACAGCCCTGCC TACCCAGTGAGCAGCGCTGCATGCTCCACCCCATCTGTC
TGTCCAACCTCTCCAGCGCCAGCTATCCAGCGCCACGTCTCTAGCGCCTTCTCCGACAACGGCCTTGACAGTG

FIGURE 216B

[illegible]

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FIGURE 217

ERNQLVTLDICGYFLKALYASSNELVQLDVYPVPNYLSYMDVSRNRLENVPEWVCESRKLEVLDIGHNQICELPA
RLFCNSSLRKLLAGHNQLARLPERLERTSVEVLDVQHNQLLELPPNLLMKADSLRFLNASANKLESPPATLSEE
TNSILQEELYLTNNSLTDKCVPLLTGHPHLKILHMAYNRLQSFPAKMAKLEEEIDLSGNKLKAIPPTIMNCRR
MHTVIAHSNCIEVFPEVMQLPEIKCVDLSCNELSEVTLPENLPPKLQELDTGNPRLVLDHKTLELLNNIRCFKI
DQPSTGDASGAPAVWSHGYTEASGVKNKLCVAALSVNNFCDNREALYGVFDGDRNVEVPYLLQCTMSDILAEELQ
KTKNEEEYMVNTFIVMQRKLGTAGQKLGGAAVLCHIKHDPVDPGGSFTLTSANVGKCQTVLCRNGKPLPLSRSYI
MSCEEELKRIKQHKAIITEDGKVNGVTESTRILGYTFLHPSVVP RP HVQSVLLTPQDEFFILGSKGLWDSLSVEE
AVEAVRNVPDALAAAKKLCTLAQSYGCHDSISAVVVQLSVTEDSFCCCELSAGGAVPPPSPGIFPPSVNMVIKDR
PSDGLGVPSSSSGMASEISSELSTSEMSSEVGSTASDEPPPGALSNSPAYPSEQRCMLHPICLSNSFQRLSSA
TFSSAFSDNGLSDDEEPIEGVFTNGSRVEVEVDIHCSRakeKEKQQLLQVPAEASDEGIVISANEDEPGLPRK
ADFSAVGTIGRRRANGSVAPQERSHNVIEVATDAPLRKPGGYFAAPAQPD PDDQFIIPPELEEEVKEIMKHHQEQ
QQQQQPPPPPQLQPLPRHYQLDQLPDYYDTPL

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FIGURE 218

AGCGGCCGGGGCCACGATGGAGCGCGACGGCTGCGCGGGGGGCGGGAGCCGCGGCGGCGAGGGCGGGCGCGCTCC
CCGGGAGGGCCCGGCGGGGAACGGCCGCGATCGGGGCGCAGCCACGCTGCCGAGGCGCCCGGGGACCCGCAGGC
GGCCGCGTCTTGTCTGGCCCTATGGACGTGGGGGAGGAGCCGCTGGAGAAGGCGGCGCGCGCCCGCACTGCCAA
GGACCCCAACACCTATAAAGTACTCTCGCTGGTATTGTTCAGTATGTGTGTTAACAACAATACTTGGTTGTATATT
TGGGTTGAAACCAAGCTGTGCCAAAGAAGTTAAAAGTTGCAAAGGTCGCTGTTTCGAGAGAACATTTGGGAAGCTG
TCGCTGTGATGCTGCCTGTGTTGAGCTTGGAACTGCTGTTTAGATTACCAGGAGACGTGCATAGAACCAACA
TATATGGACTTGCAACAAATTCAGGTGTGGTGAGAAAAGGTTGACCAGAAGCCTCTGTGCCTGTTTCAGATGACTG
CAAGGACAAGGGCGACTGCTGCATCAACTACAGTTCTGTGTGTCAAGGTGAGAAAAGTTGGGTAGAAGAACCATG
TGAGAGCATTAAATGAGCCACAGTGCCCGAGCAGGTTTGAACGCCTCTTACCCTCTTATTTCTTTGGATGGATT
CAGGGCAGAATATTTACACACTTGGGGTGGACTTCTTCTGTTATTAGCAAATAAAAAATGTGGAACATATAC
TAAAAACATGAGACCGGTATATCCAACAAAACTTCCCAATCACTACAGCATTGTCACCGGATTGTATCCAGA
ATCTCATGGCATAATCGACAATAAAATGTATGATCCCAAATGAATGCTTCTTTTCACTTAAAAGTAAAGAGAA
ATTTAATCCTGAGTGGTACAAAGGAGAACCAATTTGGGTACAGCTAAGTATCAAGGCCTCAAGTCTGGCACATT
TTTCTGGCCAGGATCAGATGTGGAATTAACGGAATTTCCAGACATCTATAAAATGTATAATGGTTTCAGTACC
ATTTGAAGAAAGGATTTTAGCTGTTCTTCAGTGGCTACAGCTTCTTAAAGATGAAAGACCACACTTTTACACTCT
GTATTTAGAAGAACCAGATTCTTCAGGTCATTTCATATGGACCAGTCAGCAGTGAAGTCATCAAAGCCTTGACAG
GGTTGATGGTATGGTTGGTATGCTGATGGATGGTCTGAAAGAGCTGAACTTGACACAGATGCCTGAACCTCATCCT
TATTTTCAGATCATGGCATGGAACAAGGCAGTTGTAAGAAATACATATATCTGAATAAAATATTTGGGGGATGTTAA
AAATATTAAGTTATCTATGGACCTGCAGCTCGATGAGACCCTCTGATGTCCAGATAAAATACTATTCTTTAA
CTATGAAGGCATTGCCCCGAAATCTTTCTTGGCGGGAACCAACCAGCACTTCAAACCTTACCTGAAACATTTCTT
ACCTAAGCGTTTGCATTTGCTAAGAGTGATAGAATTGAGCCCTTGACATTCTATTTGGACCCTCAGTGGCAACT
TGCATTGAATCCCTCAGAAAGGAAATATTGTGGAAGTGGATTTCATGGCTCTGACAATGTATTTCAAATATGCA
AGCCCTCTTTGTTGGCTATGGACCTGGATTCAAGCATGGCATTGAGGCTGACACCTTTGAAAACATTGAAGTCTA
TAACCTAATGTGTGATTTACTGAATTTGACACCGGCTCCTAATAACGGAACCTCATGGAAGTCTTAACCACCTTCT
AAAGAATCCTGTTTATACGCCAAAGCATCCCAAAGAAGTGACCCCCCTGGTACAGTGCCCCCTCACAAGAAACCC
CAGAGATAACCTTGGCTGCTCATGTAACCCCTTCGATTTTGCCGATTGAGGATTTTCAAACACAGTTCAATCTGAC
TGTGGCAGAAGAGAAGATTATTAAGCATGAACTTTACCCTATGGAAGACCTAGAGTCTCCAGAAGGAAAACAC
CATCTGTCTTTCTTTCCAGCACCAGTTTATGAGTGGATACAGCCAAGACATCTTAATGCCCCCTTGGACATCCTA
TACCGTGGACAGAAATGACAGTTTCTCTACGGAAGACTTCTCCAAGTGTCTGTACCAGGACTTTAGAAATCCTCT
TAGTCTGTCCATAAAATGTTTCAATTTTATAAAAAAATACACCAAAGTGAGTTACGGGTTCTCTCCCCACCACAACT
AAATAAAAAATTCAGTGGAATATATTCTGAAGCTTTGCTTACTACAAATATAGTGCCAATGTACCAGAGTTTTCA
AGTTATATGGCGCTACTTTTCATGACACCCTACTGCGAAAGTATGCTGAAGAAAGAAATGGTGTCAATGTCGTCAG
TGGTCTGTGTTTGACTTTGATTATGATGGACGTTGTGATTCTTAGAGAATCTGAGGCAAAAAGAGAGTCAT
CCGTAACCAAGAAATTTTGATTCCAACCTCACTTCTTTATTGTGCTAACAAGCTGTAAAGATACATCTCAGACGCC
TTTGCATGTGAAAACCTAGACACCTTAGCTTTCAATTTGCTCACAGGACTGATAACAGCGAGAGCTGTGTGCA
TGGGAAGCATGACTCCTCATGGGTGAAGAATTGTTAATGTTACACAGAGCACGGATCACAGATGTTGAGCACAT
CACTGGACTCAGCTTCTATCAACAAAGAAAAGAGCCAGTTTCAGACATTTTAAAGTTGAAAACACATTTGCCAAC
CTTTAGCCAAGAAGACTGATATGTTTTTATCCCCAAACACCATGAATCTTTTGAGAGAACCTTATATTTTATA
TAGTCTCTAGCTACACTATTGCATTGTTTCAGAAAAGTGTGACAGAGTTAGAACGGAGCCCTCGGTGATGCGGA
CATCTCAGGGAACTTGCGTACTCAGCACAGCAGTGGAGAGTGTTCTGTTGAATCTTGACATATTTGAATGTG
TAAGCATTGTATACATTGATCAAGTTCGGGGGAATAAAGACAGACCACACCTAAAAGTGCCTTTCTGCTTCTCTT
AAAGGAGAAGTAGCTGTGAACATTGTCTGGATACCAGATATTTGAATCTTTCTTACTATTGGTAATAAACCTTGA
TGGCATTGGGCAAACAGTAGACTTATAGTAGGGTTGGGGTAGCCCATGTTATGTGACTATCTTTATGAGAATTTT
AAAGTGGTCTGGATATCTTTTAACTTGGAGTTTCATTTCTTTTATTGTAATCAAAAAAAAATTAACAGAAGC
CAAAATACTTCTGAGACCTTGTTCATCTTTGCTGTATATCCCTCAAATCCAAGTTATTAATCTTATGTGTT
TTCTTTTAAATTTTTTGATTGGATTTCTTTAGATTAAATGGTTCAAATGAGTTCAACTTTGAGGGACGATCTTG
AATATACTTACCTATTATAAAATCTTACTTTGTATTTGTATT

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FIGURE 219

MDVGEEPLEKAARARTAKDPNTYKVLSSLVLSVCVLTTILGCIFGLKPSCAKEVKSCKGRCFERTFGNCRCDAAACV
ELGNCCLDYQETCIEPEHIWTCNKFRGCEKRLTRSLCACSDDCDKDGDCCINYSSVCQGEKSWVEEPCESINEPQ
CPAGFETPPTLLFSLDGFRAEYLHTWGGLLPVISKLLKKCGTYTKNMRPVYPTKTFPNHYSIVTGLYPESHGIIDN
KMYDPKMNASFSLKSKEKFNPWEYKGEPIWVTAKYQGLKSGTFFWPGSDVEINGIFPDIYKMYNGSVPFEEERILA
VLQWLQLPKDERPHFYTTYLEEDSSGHSYGPVSSEVIKALQRVDGMVGMMLMDGLKELNLHRCLNLILISDHGME
QGCKKYIYLNKYLGDVKNIKVIYGPAARLRPSDVPDKYYSFNYEGIARNLSCREPNQHFKPYLKHFLPKRLHFA
KSDRIEPLTFYLDPQWQLALNPSEKCYGSGFHGSDNVFSNMQALFVGYPGFKHGIEADTFENIEVYNLMCDLL
NLTPAPNNGTHGSLNHLLKNPVYTPKHPKEVHPLVQCPFTRNPRDNLGCSCNPSILPIEDFQTQFNLTVAEEKII
KHETLPYGRPRVLQKENTICLLSQHQFMSGYSQDILMPLWTSYTVDRNDSFSTEDFSNCLYQDFRIPLSPVHKCS
FYKNNTKVSYGFLSPPQLNKNSSGIYSEALLTTNIVPMYQSFQVIWRYFHDTLRLKYAEERNGVNVVSGPVDFD
YDGRCDLENLRQKRRVIRNQEILIPTHFFIVLTSCKDTSQTPLHCENLDTLAFILPHRTDNSESCVHGKHDSSW
VEELMLHRARITDVEHITGLSFYQQRKEPVSDILKLKTHLPTFSQED

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FIGURE 220A

CCCGGGCTGTGGGCTACAGGCGCAGAGCGGGCCAGGCGCGGAGCTGGCGGCAGTGACAGGAGGCGCGAACC CGCA
GCGCTTACCGCGCGGGCGCCGACC**ATGG**AGCCCGCCGTGTGCTGGCCGTGTGCGCGCTGCTCTTCCTGCTGTGG
GTGCGCCTGAAGGGGCTGGAGTTCGTGCTCATCCACCAGCGCTGGGTGTTTCGTGTGCCCTCTTCCTCTGCCGCTC
TCGCTTATCTTCGATATCTACTACTACGTGCGCGCCTGGGTGGTGTTCAGCTCAGCAGCGCTCCGCGCCTGCAC
GAGCAGCGCGTGGCGGACATCCAGAAGCAGGTGCGGGAATGGAAGGAGCAGGGTAGCAAGACCTTCATGTGCACG
GGGCGCCCTGGCTGGCTCACTGTCTACTACGTGTGCGGAAGTACAAGAAGACACACAAAAACATCATGATCAAC
CTGATGGACATTCTGGAAGTGGACACCAAGAAACAGATTGTCCGTGTGGAGCCCTTGGTGACCATGGGCCAGGTG
ACTGCCCTGCTGACCTCCATTGGCTGGACTCTCCCGTGTTCCTGAGCTTGATGACCTCACAGTGGGGGGCTTG
ATCATGGGCACAGGCATCGAGTCATCATCCACAAGTACGGCCTGTTCCAACACATCTGCACTGCTTACGAGCTG
GTCCTGGCTGATGGCAGCTTTGTGCGATGCACTCCGTCCGAAAACCTCAGACCTGTTCTATGCCGTACCCTGGTCC
TGTGGGACGCTGGGTTTCTGGTGGCCGTGAGATCCGCATCATCCCTGCCAAGAAGTACGTCAAGCTGCGTTTC
GAGCCAGTGGGGGCTGGAGGCTATCTGTGCCAAGTTCACCCACGAGTCCAGCGGCAGGAGAACCCTTCGTG
GAAGGGCTGCTCTACTCCCTGGATGAGGCTGTCATTATGACAGGGGTCATGACAGATGAGGCAGAGCCCAGCAAG
CTGAATAGCATTGGCAATTACTACAAGCCGTGGTTCTTTAAGCATGTGGAGAAGTATCTGAAGACAAACCGAGAG
GGCCTGGAGTACATTCCCTTGAGACACTACTACCACCGCCACACGCGCAGCATCTTCTGGGAGCTCCAGGACATC
ATCCCTTTGGCAACAACCCCATCTTCCGCTACCTCTTTGGCTGGATGGTGCCTCCCAAGATCTCCCTCCTGAAG
CTGACCCAGGGTGAGACCTGCGCAAGCTGTACGAGCAGCACCACGTGGTGCAGGACATGCTGGTGCCCATGAAG
TGCTGACAGCAGGCCCTGCACACCTTCCAAAACGACATCCACGTCTACCCCATCTGGCTGTGTCCGTTTCATCTG
CCCAGCCAGCCAGGCCTAGTGACCCCCAAAGGAAATGAGGCAGAGCTCTACATCGACATTGGAGCATATGGGGAG
CCGCGTGTGAAACACTTTGAAGCCAGGTCTGTCATGAGGCAGCTGGAGAAGTTTGTCCGACGCTGCATGGCTTC
CAGATGCTGTATGCCGACTGCTACATGAACCGGGAGGAGTTCTGGGAGATGTTTGATGGCTCCTTGTAACACAAG
CTGCGAGAGAAGCTGGGTGGCCAGGACGCCTTCCCGAGGTGTACGACAAGATCTGCAAGGCCGCCAGGCAC**TGA**

GCTGGAGCCCGCTGGAGAGACAGACACGTGTGAGTGGTCAGGCATCTTCCCTTCACTCAAGCTTGGCTGCTTTC
CTAGATCCACACTTTTCAAAGAGAAAACCCCTCCAGAACTCCACCCTGACAGCCCAACACCACCTTCCTCCTGGCT
TCCAGGGGGCAGCCAGTGGAATGGAAGAATGTGGATTGAGAGTCAGACAAGCCTGAGTCCAGTTCCCGGTTT
AGAAGTCAATTAGCTGTGTGACTCTGGGTGAGTCCCTTAACCCCTCTGAGCCCGGGTCTCTTCATTAGTTGAAAGG
GATAGTAATACCTACTTGCAGGTGTGTGTCATCTGAGTTGAGCACTGGTCACATTGAAGGTGCTGGGTAAGTGGT
AGCTCTTGTTGCTTCCCGTTCAGCGTCACATCTGCAGTGGAGCCTGAAAAGGCTCCACATTAGGTACCTGTGCA
CAGCCATGGCTGGAATGATGAAGGGGATACGCTGGAGTTGCCCTGCCATCGCCTCCATCAGCCAGACGAGGTCT
CACAGGAGAAGGACAGCTCTTCCCCACCTGGGATCTCAGGAGGGCAGCCACGGAGTGGGGAGGCCCCAGATGCG
CTGTGCCAAAGCCAGGTCCGAGGCCAAAGTTCTCCCTGCCATCCTTGGTGCCGTCTGCCCCCTCCTCCTTCATG
CCTGGGCCTGCAGGCCCCACCCAGCCACCACTGAGTCCACTCGGAGTGGCCTGTGTTCTTGAGAAAGGCATTCCA
GGGTTGAATCTTGTCCCAGCCTCAGCCTGGGACACCTAGGTGGAGAGAGTGGTCTCCGCTCTGAATTGGATCCAG
GGGACCTGGGCTCATTCTTCTTGGCTCACCAACCTGACAGGCCTCATCTTTCCCAAAACCCACTTTGTCTTGGTG
GGAGTGGGTCCGCGCTGCTCTGCAGCAGGGGCTGGGGAGTGGACAGCATCAGGTGGGAAAGTGGAGTCCACCCTC
ATGTTTCTGTAGGATTCTACCCGTGGGGCTGGAAGAAAAGAGCATCGACTTGATTTCTCCAACCACTCATCCCTC
TTTTCTTTCTTCCACCACTCCCCACCCAGCTGTAGTTAATTTAGTGCCTTACAAATCCTAAGCTCAGAGAAA
GTTCCATTTCCGTTCCAGAGGGAAGGGAACCTCCCTAGGTCTTCCCTGGCTTGTTATAACGCAAGCTTGGTTG
TTTATGCAACTCTATCTTAAGAACTGCCCAGCCTCAGCTGAAAACCCGAATCTGAGAAGGAATTGCGTCATGTAA
GGGAAGCTGGAATTAAGGGAGCTGAGCCAGTCATGGTTGTGGCGTGTGAGTCAGGAGACCTAGGTTTCAGCCCT
CTCTACTGTGACGAGCTGTGCAACGTGGGCAAGTCATTGTCTCTGAGCTGCAGTTTCTCATCTGTACATCG
CTACAGACAAGACCTCCCTGGAACCTTCTGATTGTCTTAGACACTGTGGTTGCAAAACCCACGGAAAGCCTCAT
TTGTGTGGAAGTCAGAGGAAAAATGATCCAGTGGACACTTGGGGATTATCTGTCAATTCAAGATCCTTCCTCAA
CCCCAAGGCCAGCTCCCATCTCATTTCCAGAAAGGCTCATACTGGCTTGACAGGGAAGCATCTGTCTTGTCAATC
CAGGTGCCAGAATCCTCTCAGAGTCATTGAAGGGTGTTCACCCATCCCAAGGCTTGGCACACTGCCAGTGT
CTTAGCAGGGTCTTGTGAGGGCTGGGGGCATCCAGGCACTCAGAAGGCAAGGAACCACTACCCATTGGCCT
CTGGAGGGGGCAGAAGAAAGAAAGAAACCTCATCCATATTTTACAAAGCATGTGAATTCTGGCATTAGCTCTCA
TAGGAGACCCATGTGCTTCTTGGCTCAGTGCAAAACTGATGATTCTACTTGCTGTAGATGAATGGTTAACACGAG

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FIGURE 220B

CTAGTTAAACAGTGCCATTGTTTTGCCAGTGAAGCCTCCAACCCTAAGCCACTGGGACGGTGGCCAGAGATGCCA
GCAGCCTCTGTGCGCCCTTAGTCATATAACCAAAATCCAGACCTTATCCACAACCCGGGGCTTGGAAGGAAGGTA
TTTTGGAATCACACCCTCCGGTTATGTTGCTCCAGTAAATCTTGCCTGGAAAGAGGCAGTCTTCTTAGCATGGT
GAGCTGAGTTCATGGCTTTTTTTTGTAGCCAGTCCTGTCCCTGGCCATCCATGTGATGGTTTTGGATGGAGTTAA
ACTTGATGCCAGTGGGCAGTGCATGTGGAAAGTATCAGAGTAAGCCTCTCCCCCTCCAGAGCCCTGAGTTTCTTGG
CTGCATGAAGGTTTTCTTTAGAAATCAGAATTGTAGCCAGTTTCTTTGGCCAGAAGGATGAATACTTGGATATTAC
TGAAAGGGAGGGGTGGAGATGGGTGTGGCAGTGTATGGTGTGTGATTTTTATTTTCTTCTTTGGTCATGGGGGCC
AAGGAGAAAGGCATGAATCTTCCCTGTCAGGCTCTTACAGCCACAGGCACTGTGTCTACTGTCTGGAAGACATGT
CCCCGTGGCTGTGGGGCCGCTGCTTCTGTTTAAATAAAAGTGGCCTGG

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FIGURE 221

MEPAVSLAVCALLFLLWVRLKGLEFVLIHQWVFCVCLLPLSLIFDIYYYVRAWVVKLSSAPRLHEQVRVDIQ
KQVREWKEQGSKTFMCTGRPGWLTVSLRVGKYKKTHKNIMINLMDILEVDTKKQIVRVEPLVTMGQVTALLTSIG
WTLPLPELDDLTVGGLIMGTGIESSSHKYGLFQHICTAYELVLADGSFVRCTPSENSDLFYAVPWSCGTGLGFLV
AAEIRIIPAKKYVKLRFEPVRGLEAICAKFTHEQSQENHFVEGLLYSLDEAVIMTGVMTDEAEPKLNLSIGNYY
KPWFFKHVENYLKTNREGLEYIPLRHYYHRHRSIFWELQDIIPFGNNPIFRYLFQWVPPKISLLKLTQGETLR
KLYEQHHVVQDMLVPMKCLQQALHTFQNDIHVYPIWLCFFILPSQPGLVHPKGNEAELYIDIGAYGEPRVKHFEA
RSCMRQLEKFVRSVHGFQMLYADCYMNREEFWEMFDGSLYHKLREKLGCCQDAFPEVYDKICKAARH

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FIGURE 222

CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCTGTTCATGGACCTGCAGGCGGTTCGTGCCGCGGAG
CTCTACCCAGTTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC
CCAGCCTGGTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTTCAGCTGCCTTTCTTTCCCATTTGCAACGTATGCC
TTCTCAAAGGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTTACACCATGACAACCTTAATT
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTTCATACTTTTAATTTTCATGTTG
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAATGAAGGAAACAACCACTGGCCCCAGGGTAGAGAT
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCACGTCTTCAGCAGCATTTGAAAC
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTTT
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAATAACAGGTGTGTACCAACACGTATGGCT
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCCAGGTTGGTCTCGAACGCCTAGG
CTCAAGTGATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACC
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA
AGGAAGTGGTACCAAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACT
GCTAAAGAACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCCTC
CACTCCTGATTCTCAAGAGTGTATCACCTGTCAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA
AATTTTGCTCTTTAATGTTAATTCAAAACATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAAG
AGAAAACATACTATGCAAAGGAAGTTTAACTTAAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAA
ATGGATTAAACTGGAAAATGTTTTTGTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTTGTGTTGTTT
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA
GTTCCGTCATTCCCATCTTGTTTTTCAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG
AGGGTCTCTTACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAAATGA
TGTTAGACAACAGGTCCCAGTCAGTCCCCTCTATTTTACCCATTTTGCTCACAAGCCATATTGGCCCGATTAGT
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

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FIGURE 223

GGGTATTTTCATGTTATGCCCATTTATAGTTTACTGTGGATTGTTTGTATCCCTTACCTGCTTTCTATTGGGTTAT
GTGTGGATAATTTGTTTTTATTGTTCAGCATCTCCTTCCCCATCTTCTGGTAACACAACCTTTATTTATTTGTG
GGGAACCTATTCCCTGTGGCTTAGGTGAGCATGTGACCAGGCCTGGCCTCCTGAGTCCCACAGCTTCCTAGCCAC
AGTGATAAAAGAATGGGTATATAACTTAAGCCAGGCTAAGGAAAAGCCCTTAACA

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FIGURE 224

TACTTTTAGATTTACTGCCTTCAAAAAGTGCCTATTCTGAGCAACATAAACGTTATTCCTTACATATGTATGTAC
ACACGGTACCCAGAGTCGTACTGTGGCAGCCTTCAAAAACATAACCATCAGAAAGAGTAGGTGCTGAGATAAGGXA
ACTTTGCCAAATGXAAGAAAGTCACTCACTTCCAATATCCCCCTCTTCAAGCGGCTACCGTGRAASGGGCTGCAAA
CACATTCCCTGAGCATCCCTTGCTGATACAGCTTCTTTATATTTATATCCTACTGGATGGTAGCATATTGCTAAG
GTTTCCTGTACTCTGCTTCAAGGGAATGTAAGYTTTATGGCATTGAAACATTTAGGAAAAAAAAAAGATGTTTAAG
AGAATTAATAGAGCCGTAGTCTGTATTAGGATGTGTGTCATATGTGTGTTCTATAAACTAAGCATCGGTGGGTTT
AGAGTGTTAAAGTGTGAGCACATTCTTCTCTTTTGTCTCTCAGGCTAACATGAGAGAAAATAGAAAAGTCTTG
GCTGTGGGGATTGGAAGCTCAGGGGGCCAAATGTCCTTGCCAGATCCTTAGAGCATTACTTTGACTCCTAAAAAT
AGTAGTGATGTTATTTGATGGCTTTTGTTCATAGTTCCATCACTGACAAAAGTCAATACTGTTGATGGAG
CAGCAGCATAGCCTAGAGTGATGCATTCTTACCCAGAGGTGGCAATAGGAGAGGGTCCATGTAAATAGGACGAGG
TAGACAGTGATGATTGTAGGAGAAGGGTTGAAGGAGGACATGATTCCAAAAAAGATCGTTCTCAATGTGTCGT
CTGACTCAACCAGCTGGCAGATTACACTTGCCAAGTCGTTCCCTTTCTTCTAAGTCAGTTGGCTCCATATTAC
TTGAATATGCCTCTGTTTGGGCAAAGCAAGATACCTCCACTTAACCTTTATCCAAGGAAGCTCTTGGTGTCTCT
TGGTCATAAAGTTGTCTCCTACCTAACCCAGTTTTACCAAATGGAAGTAAAAGGGGACAACTATGGAAGATGGA
CTCCATGCCATTGCAGTCAGCCACCATTCTCTTTTCCATATAAGGAGCCCCATTACATAAGCTACGGGTGAGGTT
GGAACAGCTATGTTTCATAATTTCAAGAGTGTGACCACCCTGCTCTAGTCATCATCATTGGATGAATCCAGTTGA
CTCTTTGGCAAAGGGTGATACTTTTCACTAAAAATGCCTACTCTTCTGTTGATGTTCTTTTCTGTTTTTACC
TTGTCCAATTTCCACACTAGTCATTTTTTTTTATTTTATAGAGGATCAGATTTTAGCGCTGGAAAATGAGTTCAA
AATTTAGTGTAATGTCATAAGGATGTTGGGATACAGAGATTTTTTTTTCTTGGAAACAAATGGACTGGGAAG
AAACACAGCATGGCTTTGCTCTGAGTTTCAATCTGATGATTATGACCATGGAAGATAGTCTTATGTAAAGGTTAA
ATGGTGTTTACAAGTGGATAGATAAGGCGGAGATGGTGAGAAGCCGGGTTTTCTCTATGCTAAATGTGTCTACTA
AGAGCAGCACTTCCTACTAGCTAAGCACAAATCATAGCCCCACCGTGATGAGCTGCTAGTCTGAATAACATTCCCT
GACTTAGGGAAAGGCACACAAAAACATATAAAGAATATGTCTATTTTCATATGTGTGATACTGACAGAGCCATGG
TATTCCTAAAAATATAGGTTTCTCTTTTTTCTTGTAATCTTAGCAAATTGCATTTATTCCTACATTACAAACCAT
CACTGATGTATCCAAAAATAGCACACATAGTTTCAAGTATGAAAATAAGAGAATAAAATCTGTTATAAGCAAGTGATT
TAGGTATTTTCTTTTGTGTTTATGCATTATCTGACTATATTAACCTGTTTTTCTATTTACCTTCTATCAGTTT
TCTCTACCAATTATGTTTTTTCAATGCTCTATAAGAATGAATATGGAAATTATTTCTTTTTTCTGTAAAAGAG
TTGCAACTACTTTATTATATTTAGAAATCCAATAAACTTCTTATTACATTTAAAAAAAAAAAAAAAAAACTCGAA

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FIGURE 225

MVFLKYRELF~~FL~~VL~~FL~~ANCIYSLHYKPSLMYPK

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FIGURE 226

TGGGCAATTAAACCAAGCCATATAGCCAAATGAATATGAAGTCCGGAGAAAGAGCTGTAATAAAACGTTTGGATGTCACGT
GTACAATCCTTTGGCTGGTCTGACAGAGCTAAGAGCCAGACAGAAAAATTAGCCAAGGTTTACCAGCCGAAACGTT
TCAGTCTTATCCCCTAAAACACTACTATTTCTGTTGCCATCTTTTGGCTGCAAGGCAGGACTTGTCAAAGATTTTA
AGGACAAGCAGCGGCTCTATAAGAGAAAAAGACTGCCGTGTGCCATCAATAAGGTGTTGATGGGCAGGGTGCCTGAC
AGAGGTGGTAGACCAATGAAATCGAACCTCCACC CCCAGAGATGCCACCGTGGCAGAAGAGGCAAGATGGCCCC
CAGCAGCAAAACAGGAGGCCGAGTAGGAGGGAGAGGTGGCTATGAACATTCTCATACGGAGGACGAGGAGGTCAT
GAACAAGGAGGCGGGAGAGGTGGACGTGGTGGCTATGACCATGGTGGCCGAGGGGGAGGAAGAGGAAATAAGCAT
CAAGGAGGCTGGACAGATGGAGGGAGTGGTGGAGGAGGTGGCTACCAAGATGGTGGTTATCGAGATTACAGGTTTC
CAGCCAGGTGGCTATCATGGTGGCCACAGCAGTGGTGGCTATCAAGGCGGAGGTTATGGTGGCTTCCAAACAICT
TCTTCATATACAGGAAGTGGATACCAGGGTGGTGGCTACCAGCAGGACAATAGATACCAAGATGGCGGGCACCAT
GGTGATCGTGGTGGTGGTCTGGTGGGCGAGGTGGTGGTGGAGGCCGAGGTGGTGGTGGCAGGCCAGGGAGGAGGC
TGGGGAGGAAGAGGGAGCCAGAATTATCACCAGGGGGGTCAATTTGAACAGCATTTCAGCATGGAGGTTATCAG
TATAATCATTCTGGATTTGGACAGGGAAGACATTACACTAGTTGAGGCTACCGAACTTTACATTTTGCTAGAGCT
CAAGTAATAGAACTTAGTTTCAGAACTCTGAATT CAGCACCTATTTTGAATTAATGTGAGACCACAGGTGGCAG
GCAGATTCCTGCTTGGCATAAGCATTGTAGGTCTTCATTCGAATTCGTGTTAGATTTTTTTATTGGACTTACATAA
TGCCGTTTATTTGAGAAACACATAACATCTCTCCTTCCTATGAAAAATTTTTTAAAGGTGGTTAAAATTGCCTT
TAATTGCCCAGTAGACTAATTCACAGTCAGAACATGCAAACCTTTTTTGAAGAAATTACTTGAATAAGTAGTTTT
CATGTTTTCAATATGCAGTTTTGAAAATGAGGATT CACCTAGACTTTTTTAGATTTACTACTAGGAAACCTTCCT
CATATGAATAACCATTTATATGTGTTTTGCTTAAAGTATTCCAATGCCTATTTTCCAAGCACAGTTCTGCCCCC
GGTTGACTTTTTATGCCACGTGTGCTTCATGATGGAACTTTTAGGTCAGTTCCCTATTAAATGAGCTCTTCTGCAGA
TAGCACATT CAGTAGCCTTATTTTGTGATGGAAT ACTGTATCATATGCTCAACTCTGAAAACCTTGAACACGGC
CAAAATCCATAAAGATTATAAAAGCAAACCTAAGTTGTGAAGCTATAGTACATGTAGGCATTTAGTTAAGTATAGC
AATTCAAACCTGACCTGCATCCATCCAAAACAAATTCTCTCTCAACCTTATTTTTACTTGAAATTTGCTAGAAGA
AATAGCAAACCGAAATTTGTTTTATGCATGAGTTAATACCACCTGGCTCAGCAAATACAAGTTAGTTTGCTTTAAG
CAGGTAACCTTTTTTTGTAATGGAAGAAATGCACTACAAAGTTAAGACAGATTTTTGCTAAGTGCAGGAGGCCCTT
TATTATTGCTGCGAGAAAAACAAAGCCTGGCTGAGT TGATGTTTTACATTCTCCCTTACTGAAATCTACATGACAT
GATGCTTCTTGCTGGGTTTTTGTACATGTAAACAT TGTCAGCTGTGAAAGAAAATGGCTGGAGGTGTGCTTTGT
GTGAAAGGTGAGCAATAAAGTATCTGTTAAGTTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 227

WAINQAIANEYEVRRKLLIKRLDVTVQSFGWSDRAKSQTEKLAKVYQPKRSVLSPKTTISVAHLLAARQDLSKIL
RTSSGSIREKTACAINKVLGRVPDRGGRPNEIEPPPPPEMPWQKRQDGPQQQTGGRVGGRRGGYEHSSYGGRGGH
EQGGGRGGRRGGYDHGGRGGGRGNKHQGGWTDGGSGGGGGYQDGGYRDSGFQPGGYHGGHSSGGYQGGGYGGFQTS
SSYTGSYQGGGYQQDNRYQDGGHHGDRGGGRGGRGGRGGRGGRAGQGGGWGGRGSQNYHQGGQFEQHFQHGQYQ
YNHSGFGQGRHYTS

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FIGURE 228

GGAAGTCTGCTCATGGAAGTGGCTCCTCTCCTCTTGCCACTTGAGTCTGTTTCGAGAAGTCCAGGGAAGAACTTG
AAGAGCAAAATACACTCTTGAGTTTGTGGGTTTTGGGAGAGGTGACAGTAGAGAAGGGGGTTGTGTTTAAATA
AACACAGTGGCTTGAGCAGGGGCAGAGGTTGTGATGCTATTTCTGTTGACTCCTAGCAGCCATCACCAGCATGAA
TGTGTTTCGTAGGGCCTTTGAGTGTGGCGATTGTCAATTTCTGTTGGATAACAATGTATTGGGTGTCGATTGTCAT
GGGGCAGGGGAGAGGGCAGTACACCTGGAGGACCAATTTGTCCACATCGACACCATCAGTCTGCTCTTAGAGGAT
GCCCTGGAGTATTCGGCGTTGATTGCGGGGCACCCGAAATCAGACTTGCCACCTGGACTGTCGAGGTGCAGACCC
TGGGAGCACCCTGGCCCATCTCTTACACAGGCTGACCGATTTCTCCTGGTGTTCAGAGTCTGTTTTGTCTAGC
ACCATTGAAATCGGTTATGATGTAGGGGAAAAGCAGCAGCCTCGAAGCCTCATGCCAACTCTGGGCAGCAGCA
GCCTGTGGTTTCCTGGAAGATGGATGGGCAGAGAA TAGGGAAGGAAGATCATGCTTTTCCCTACTA ACTTCTGTA
ACTGCATGTATGATACATTATTGCAGAGGTAAGAGATAGTTTAATGGATTTTAAAAACAAATTACTATAATTTA
TCTGATGTTCTCTAGTTGCATTTTGCTGAAATGTAGTGCTGTTCTAAATTCTGTAAATTGATTGCTGTTGAATTA
TCTTTCTGTTGAGAAGAGTCTATTCATGCATCCTGACCTTAATAAATACTATGTTTCAGTTAAAAAAAAAAAAAA
AAAAAAAAAAGGGCGGCCGC

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FIGURE 229

AGAEVVMFLFLTPSSHHQHECVRRAFECGDCHILLDNNVLGVDCHGAGERAVHLEDHFVHIDTISLLLEDALEYS
ALIAGHPKSDLPPGLSRCRPWEHHWPISYTG

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FIGURE 230

CCGAGGCACTGCCACCACCAGCTCTAGCAGGGATGCTCCTGAGCTTGGCGGACATACTTAGATCCTAACGTGCCA
GTGAGACCTGGCTGTGGAGAGTAGCACTGGCAGCCCTGCCTGGACTCCACTTGGCATGATACCAGCTCCAGAAGG
GAAGGGAGTGGAGCAGGCAGTGAGGAGAGAGCCTGGGGGTCGGCTGGGGACAGCCGTATGTGCTAGGTAGGAGTG
GAGGGAGATATGTTTACCAAATGCCTGTCCTGCCATCCTCCCAGGTAGTCAGAGTGAGCTACATCCTGCCCCGCC
TTCATTTCCATGGAAACATGGCAGCTAGGACACGGGGTACAACAGCAGCCAAATTCTTCCCCACCTCCCTTACTT
CGAAAAAAGTTTGGAACCCTGGTCCCTATACTCTGCAGTCAGAAGTGGGACTGAGCCATACATGCCCTTGAATT
CCTCCCTGTCTGGCCCTCCCTCTCCAGCAAGCAGGGTTTTCTTTAACTTGGCAGTGTGCAGAGGAGAAGTGGTAA
CACCCCCACCCATTCCCCTGCATCGGAGCTCAGTATTCTTACAGGGTAAGAGGTAGGAATCTTGCTGGGACGAG
GGGAGCCAGAAGTGGCAATAAAAAGCGTGTTGACC TGGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 231

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTGCTCGCCTTCGCCTCCTGAATCCCTAGCCATATGCGTGA
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA
TGCCCCAGGGCACTACACCATTTGGCAAGGAGATCATTTGACCTTGTGTTGGACCGAATTTCGCAAGCTGGCTGACCA
GTGCAACCGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTACCTCCCTGCT
CATGGAACGCCTGTGAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAGGTTTC
CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCAACCCACACCACCTGGAGCACTCTGATTGTGCCTTCAT
GGTAGACAATGAGGCCATCTATGACATCTGTGCTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA
CCGCCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC
AGAATTCCAGACCAACCTGGTCCCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTGATCTCTGC
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT
GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGTGCTGCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT
TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTTCAGAGGCCCGTGAAGATATGGCTGCCCT
TGAGAAGGATTATGAGGAGGTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACTAAATT
ATCCATTCTTTTGGCCCTGCAGCATGTCATGCTCCAGAATTTAGCTTCAGCTTAACTGACAGATGTTAAAGC
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC
AAAGTAAAGTCATTAACATCA

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FIGURE 232

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTGSFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVADITNACFEPAN
QMVKCDPGHGKYMACECLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLKYAKRAVHVHVVYVGEEMEEGEFSEAREDMAALEKDYEYVGVDSVEGEGEEEGEE
Y

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FIGURE 233

ATAATCACCTGGGTATATTTTATTAGGGAAAAATGACAATATTGATAATAAAAAGAGAAAGGAAAAATGAAAATG
CATCTCAGACCAGAATACCATAACAAAACCTTTTGTGGAAGCTGCATTTTATTTGAAAATCCACCCATTTTGCTAA
CATACTTTTAATATTGTAAACAAAAATAGAATCTGCAGAGACAATGCAACAAGAATGCTTAACTCATGTACAG
AATTGCTTTCCTACAATGAACTGTCCTTCTTAAGGCCCTCTCCACCCAAATGTTAAAGATGTATTTACACAAAG
CACCGATCAACAGTGCAGTTTAATTCTTCGTTTACTAACTCTTGGCTAGACATTAACTTTAAAGATACTATTTT
CCCTTATTTAAAAGGTATATGA

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FIGURE 234

CAGTATTTCCCTCAGTACTGTAAGCAAAAGTGGT ATGTTTTTCTTTCTTTATGTCTACTCTGTCCTCTGTGGCCT
TCTGGTGTACCCCTCTCTTCCTAGCCATTTCAGTCTCTCTAGTCACCTCCCTAGTAGCTAGTGCTCTCT TAAGTTTT
TATTTAATTAGAACAACTCCATTTCCATTTCAAGGTAGGTCAATGGGGGGAAAAGCCTCATGATTTAAACTGAAG
TTAACAACACAGCTTTTAAAATGAAAACATCACTCCAACCTTCTAAAGTATATTTGAGCTGATTTGTTTCCAAAA
CAAAGATATGCTGTACCTAAAACCTGCTAAAACAAAAATATAAAGACAAGGACTAGGTGATTAAGGGGAGAGAAAA
ATCATYTCCTTTCCAGGAAACCTTTGCTAAAATAAGCAAAACCTTGAXTCTATGCTTCATGGAACTGACACAAAG
AAAAGAACTGATGGATTGCACAGGCCTTGTTATAGAAATAGATCTATAAAAAGATCTGTCCACAGGAAATATAC
ACCTTCTCCTGGTTCTGAACTTCAATGGGGATTTGTACCTAGGTCTCCATCTATAGGAATACCTTCACATACCT
ATCTATTTCATGCACATATTCTGAAAACAGGTACATACAAAATTACAACAAAGGAAAAAAATTCTATTGAACACTT
AAAAATAGAAACAGGCCAGGCACGGTGGCTCATGCTGTAATCCCAACAATTTGGGAGGCTGAGGCTGGTGGATCA
CCTGAGGTCAGGAGTGTGAGACCAGCTTGGCCAACATGGTGAAACCCCGTCACTACTAAAAATACAAAAAAATT
AGCCTGTGTGGTGGCACACTCXTACAATCCXGGCTGACTCGGGAAAX

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FIGURE 235

MFFFLYVYSVLCGLLVYPSLPSHSVSLVTSLVASAL

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FIGURE 236A

AAAATACTTGCCCTTTGGAAAAAATCATTCTGGCGTCCACATTCAGACTGGTTTAGAGGAGAGTAATACTGAAG
ACATGCCCCCGAATCAAGGTAGCAATTGCGGAGATGAAAAGAAATGAGTCCAAAAGATGCTTAAATGTGACCA
TTGAACAGGATTTGACTCATTGGATATGAGGCCATGGAGCAGTGTCTGGCTAGGTGGATGGATGTTGGTGCTGTT
TAGTTAAATAGGAACTGGAAGAGAAGCAGGCTTGCAAGAATGGTAATATTTTGGACGTGTAACCTGTCTGGCAA
GATGTTGAAGAGGTAAAGGAGGCAGCACAGCATCATGGGCCTTGAGGCAGAAGCCGCTTTGATTTACTCAGAAC
ACCAAATCAGTCTCCATTTTCTTGACTCAGACTACACCCAAGAGATTGCTTCCTTCCCTGTGCTTCCCTGGCCACT
TGCTACTCTAGCTAGGAAGATCTGCCTCCCTTAGCTGAAGTCTAAGATGTGTAGCTTATGTATGCCTCTCCTCTT
CTTGTTCTGCTGTGCTGAATATAATGGGGATGCCAGGGCAGACATACCATTCAACTTGAATCTTCTTACCCAC
TTTGATAGTCTTACATGTCATTGATACCTTGTTTTCTGGTACGCCTAAAAGGAGTAGAACTTCAAGTGGTATTT
AAAAGCTTTAAGAAAAGTCAAATTTTTACTTTTTTCTTCCCATCTGAGGCATGGATTTATTTTCTTTTAAAGAA
ATCCAAATTTTAAAAGAAGGGATCTTATTTTTAAAACGAAGATCGATAATATCTACTATGTACTAAATGTCATT
CTTTAAAAGTTGTCCCTCATAATTTAGTAAATTACTTCTTTTTTAAAAAAGGAAAGAAAGAGTGTGTGCTT
ACAGGCTAACATCACAAACAATAAGTTTTCTTCTCATCCATCTCCATTTATAAACTAGTGTGACTGTCTTCTGAGC
ACAGTATTAAACCTGGACAGGGAGAGGGAGGGTGTAGAGAATGAGAGGGAAAGAGAGAGAATACCTACATATAA
GGTGACCTTAAAGAAAAGCCTTTACCCCTTCGGAAGATCTTTTCATTTTCTTTTTTCAAACACCAACT
TGTACCAGAGGGAAGATCTTTTTTAAAAGCGTTTCACTAAAATTTGTAAGGAAATAATGAGCTAGATAAAATAT
TACAGTGTTTATTTAATGAATTTACTCATATTTAAAATAATATCTAAAAAGAGTAATTTAGGAATATTGAGGCAA
TGAGACTTGAAGGTTATAAATAGTGGCAGTGAGAAAAGGAATATTATAGATAAGCTGTTGAAAAGAAAAGATGCT
AAGTTTTCTAGTGCTTCTTCTGTTTCCAAGGGATTATAGAAATCGGAGTTTGTGTGACCTGTTTCACAGGCATC
TCCTTTGTGGACTCATTGTGTCTCTTCTTAGGCTAATAGTCACCATTTATCATGGACGTTGTGATGAGTGTG
AAGCACACTTAACCTGCTTCGTGAGAGGGTACTTGGCATCACCGGTGCACAGCTGGTGTCTTAGCAGGAGACTAA
CTAGCTGACACACCGTGCTTTGTTAGCCTAATAATCTTATTTGTTAAAACCTTGCCATTTGTTGGATTTTTCTATT
TTACCCCATTTATAAACTTCTTATTGAGATCAGATGACTTCTGAATAGCATTTGCTGTATTTTTCCAAGGTAAAGA
ATATCTTTTTTCAAGTTTTTCTTTCTTTCTTTAATGTCAGAAATAGAAGAAATCTTTCTACCGACCTTGCGCAG
GAGATGTCATGGTTCATTCCATTAAATGGGACAATAATGCCTTGTGATGCTGTGCTTATTAATGGTACCTGCATTG
TAAACGAAAGCATGTTAACAGGAGAAAGTGTTCCAGTGACAAAGACTAATTTGCCAAATCCTTCAGTGGATGTGA
AAGGAATAGGAGATCAATTATATAATCCGGAACACATAAACGACATACTTGTGTTTGTGGGACAACCTGTTATTC
AGACTCGTTTTCTACACTGGAGAAGCTCGTCAAAGCCATAGTTGTTAGAACAGGATTTAGTACTTCCAAAGGACAGC
TTGTTTCGTTCCATATTGTATCCCAAACCAACTGATTTTAAACTCTACAGAGATGCCTACTTGTCTTACTATGTC
TTGTGGCAGTTGCTGGCATTGGGTTTTATCTACACTATTATTAATAGCATTTTAAATGAGGTACAAGTTGGGGTCA
TAATTATCGAGTCTCTTGATATTATCACAACTACTGTGCCCCCTGCACTTCTGTGCAATGACTGCTGGTATTG
TGATGCTCAGAGAAGACTGAAAAAATCGGTATTTCTGTATCAGTCCTCAAAGAATAAATATTTGTGGACAGC
TCAATCTTGTGTTGCTTTGACAAGACTGGAAGCTAAGTGAAGATGGTTTAGATCTTTGGGGGATTCAACGAGTGG
AAAATGCACGATTTCTTTCACCAGAAGAAAATGTGTGCAATGAGATGTTGGTAAAATCCCAGTTTGTGCTTGTA
TGGCTACTTGTCACTTACATAAAATGAAGGAGTGCTCTCTGGTGATCCACTTGATCTGAAAATGTTTGAGG
CTATTGGATGGATTCTGGAAGAAGCAACTGAAGAAGAAACAGCACTTCATAATCGAATTATGCCACAGTGGTTC
GTCTTCCCAAACAACTGCTTCCCTGAATCTACCCCTGCAGGAAACCAAGAAATGGAGCTGTTTGAACCTCCAGCTA
CTTATGAGATAGGAATTGTTTCGCCAGTTCCCATTTTCTTCTGCTTTGCAACGTATGAGTGTGGTTGCCAGGGTGC
TGGGGGATAGGAAAATGGACGCCCTACATGAAAGGAGCGCCGAGGCCATTGCCGGTCTCTGTAAACCTGAAACAG
TTCTGTGCGATTTTCAAACGTTTTGGAAGACTTCACTAAACAGGGCTTCCGTGTGATTGCTCTTGACACAGAA
AATTGGAGTCAAACTGACATGGCATAAAGTACAGAATATTAGCAGAGATGCAATTGAGAACAACATGGATTTTA
TGGGATTAATTATAATGCAGAACAAATTAAGCAAGAACCCCTGCAGTACTTGAAGATTGCATAAAGCCAACA
TTCGCACCGTCATGGTCACAGGTGACAGTATGTTGACTGCTGTCTCTGTGGCCAGAGATTGTGGAATGATTCTAC
CTCAGGATAAAGTGATTATTGCTGAAGCATTACCTCCAAAGGATGGGAAAGTTGCCAAAATAAATTGGCATTATG
CAGACTCCCTCACGCAGTGCAATCATCCATCAGCAATTGACCCAGAGGCTATTCCGGTTAAATTTGGTCCATGATA
GCTTAGAGGATCTTCAAATGACTCGTTATCATTTTTGCAATGAATGGAAAATCATTCTCAGTGATACTGGAGCATT
TTCAAGACCTTGTTTCCCTAAGTTGATGTTGCATGGCACCCTGTTTGGCCGATGGCACCTGATCAGAAGACACAGT
TGATAGAAGCATTGCAAAATGTTGATTATTTTGTGGGATGTGTGGTGTGATGGCGCAAATGATTGTGGTGCTTTGA

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FIGURE 236B

AGAGGGCACACGGAGGCATTTCCCTTATCGGAGCTCGAAGCTTCAGTGGCATCTCCCTTTACCTCTAAGACTCCTA
GTATTTCCCTGTGTGCCAAACCTTATCAGGGAAGGCCGTGCTGCTTTAATAACTTCCTCCTGTGAATTAGCACTAT
TTTCTATAGTTACTTATTCTCTGGATCATTTTATAATTTCCATATTAATTTCAAGTATGCTCGTGTTATTCTTCA
GTGATTTCCACAATTGTGCATTTTATTCTTTGGTTTAAAGTACTGAAGCATATAATGAAAGTAATTGCTAAGTAGC
AGCTTAAAAATTCAATTATCCGATTGTATTTAACA TCTTTAAGAGCATGATCATAAAGAGCTATTTTGTGACACCC
CCCCCCCACCTTTTTTAACATTTAGAGTTAGTAAGGGTTTTATATCTCTTCTGTCCATATTGTTTTCAAAGGAATG
AGGTGTTTAGGTGGCTGGAAAAGCATTTGTAGGAAGTTAGATTTGAATATAGACAAGGTGGGTATTTCACGTTGA
GAATGTTATTTGAAGAATGCCTGTGAAGCCAGGTGTGGGTTCTACTCAGTGCCATAGATAGACTGAGTCTTCTCT
CGTAGGTTACCATTACATAGTAATTTTGATTCTGAATTTACATTAAATTATTIGAGTTTATACAGACCTAAATT
TTAAAATCTGTACATATATTATTTTGATGTATTAAGATGAATATTGCTGATTTAAATTTTATTTATGCACATACT
TAAAGGACAGAAATGTCTGGGAAAGTAATTGTTAAATAATGATATGTAACTTTTTAACTTTTTAAATAAATAACA
AGATTTTTAATGTGTGTCTCCCTCAGGGTTGTTTAAAGTTTTTTTTCTCCCTCAAGTATAAATAGTGGTAACAT
ATGTTTTGTATCTTCTAGCACCAACTGCTGTAAAGCAATGCTGCAAATAATGCTTGAATACAAGTGGCTAAGCCA
ACAACAGAATAAATACTTTTATAGTAGTTTTATAATCCTGAAATTCGAAAGCTTTCCCAATTGCACTTGCATCTA
AACAAAACCTGTTGCAGTTTTTACTCTATTTATTTTGTTCCCCATGTTTATGAAAGTCCTGCACAGTTTCAAAGGC
ATGGTAAATAATATATCAATGTTTATGTAGTCTGTTACAGAAACAGCTATAGATAACATTATCCAGTGAAGAGCA
AAATTCAGCTTTAGAAAATATTCATGCATGCAATTTTGACATATCTAAAAATAGGTTTTTGTATATTTATGGTG
GGAGGTGGTTGGGAACTTTTAACAAAATGGGGTGTAAATTTTTGTACAGTCTGTGGGCATTTACACATTTTTAAT
GTATTAAAAATTGGTAATTATGTGTACATTAAATTAATAAAAGTTACTTCTAGTTATGATTTGTGAATCCCTAA
GACCTTGGATTTTTTTAAGTAACTTTATATCAGAAATGATACTGCATCTTTATATTTTTAAATTTGTATTGCTGC
TCAAGAATGGTACCCTCTTGTCAAAAAGGCATACATTCATAATTGTACATTCAGCATTGTAAATAATCTTATGAA
ACCTTTTTTGATTGAAGCTATTCAAATAAAAAATTTAATGAATGAAATAA

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FIGURE 237

MSEIEEIFSTDLPDGMVPLNGTIMPCDAVLINGTCIVNESMLTGESVPVTKTNLPNPSVDVKIGIGDQLYNPE
THKRHTLFCGTTVIQTRFYTGELVKAIVVRTGFSTSKGQLVRSILYPKPTDFKLYRDAYLFLCLVAVAGIGFIY
TIINSILNEVQVGVIIESLDIITITVPPALPAAMTAGIVYAQRRLKKIGIFCISPQRINICGQLNLVCFDKTGT
LTEDGLDLWGIQRVENARFLSPEENVCMNMLVKSQFVACMATCHSLTKIEGVLSGDPLDLKMFEAIGWILEEATE
EETALHNRIMPTVVRPPKQLPESTPAGNQEMELFELPATYEIGIVRQFPFSSALQRMSSVVARVLGDRKMDAYMK
GAPEAIAGLCKPETVPVDFQNVLEDFTKQGFVRVIALAHRKLESKLTWHKVQNISRDIAIENNMDFMGLIIMQNKLK
QEPPAVLEDLHKANIRTVMTGDSMLTAVSVARDCGMILPQDKVIAEALPPKDGKVAKINWHYADSLTQCSHPS
AIDPEAIPVKLVHDSLEDLQMTRYHFAMNGKSFVILEHFQDLVPKMLHGTVFARMAPDQKTQLIEALQNVDYF
VGMCGDGANDCGALKRAHGGISLSELEASVASPFTSKTPSISCVNLIREGRAALITSSCELALFSIVTYSLDHF
IISILISSMLVLFFSDFHNCAFYSLV

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FIGURE 238

GGCTGTGGAACGGCGGGGAGGAGGCCGCCGAGGAGACCCCGGGCGAGGAGCTGCGAGCCGGAGGAGGCCGCGC
GGACTCCGGGCTTTCCGCCGTCGCGGGGATCTCGGGGGCAAAGGGATCGCCGGGAGGGGGACCAGAGAGCCGC
GCCC GCCGCGCGGAGCGCCCCCTTCGCGTCCCCTGCACCATGAGCTGGGGCACCGAGCTCTGGGATCAGTTTGACA
ACTTAGAAAAACACACACAGTGGGGAATTGATATTCTTGAGAAATATATCAAGTTTGTGAAAAGAAAGGACAGAGA
TTGAACTCAGCTATGCAAAGCAACTCAGGAATCTTTCAAAGAAGTACCAACCTAAAAAGAACTCGAAGGAGGAAG
AAGAATACAAGTATACGTTCATGTAAAGCTTTTCATTCCAACCTGAACGAAATGAATGATTACGCAGGGCAGCATG
AAGTTATCTCCGAGAACATGGCATCACAGATCATTGTGGACTTGGCACGCTATGTTTACGAACTGAAACAGGAGA
GGAAATCAAACCTTTCACGATGGCCGTAAAGCACAGCAGCACATCGAGACTTGCTGGAAGCAGCTTGAATCTAGTA
AAAGGCGATTTGAACGCGATTGCAAAGAGGCGGACAGGGCGCAGCAGTACTTTGAGAAAATGGACGCTGACATCA
ATGTCACAAAAGCGGATGTTGAAAAGGCCCGACAACAAGCTCAAATACGTCACCAAATGGCAGAGGACAGCAAAG
CAGATTACTCATCCATTCTCCAGAAATTC AACCATGAGCAGCATGAATATTACCATACTCACATCCCCAACATCT
TCCAGAAAATACAAGAGATGGAGGAAAGGAGGATTGTGAGAATGGGAGAGTCCATGAAGACATATGCAGAGGTTG
ATCGGCAGGTGATCCCAATCATTGGGAAGTGCCTGGATGGAATAGTAAAAGCAGCCGAATCAATTGATCAGAAAA
ATGATTACAGCTGGTAATAGAAGCTTATAAATCAGGGTTTGAGCCTCCTGGAGACATTGAATTTGAGGATTACA
CTCAGCCAATGAAGCGCACTGTGTCAGATAACAGCCTTTCAAATTCCAGAGGAGAAGGCAAACCAGACCTCAAAT
TTGGTGGCAAATCCAAAGGAAAGTTATGGCCGTTTCATAAAAAAATAAGCTTATGTCCCTTTTAACATCCCCC
ATCAGCCTCCCCCTCCCCCTCCTGCCTCTGCCTCACCTCTGCTGTTCCCAACGGCCCCCAGTCTCCCAAGCAGC
AAAAGGAACCCCTCTCCACCGCTTCAACGAGTTCATGACCTCCAAACCCAAAATCCACTGCTTCAGGAGCCTAA
AGCGTGGGCTTTCTCTCAAGCTGGGTGCAACACCGGAGGATTTAGCAACCTCCACCTGAACAAAGAAGGAAAA
AGCTGCAGCAGAAAGTCGATGAGTTAAATAAAGAAATTCAGAAGGAGATGGATCAAAGAGATGCCATAACAAAA
TGAAAGATGTCTACCTAAAGAATCCTCAGATGGGAGACCCAGCCAGTTTGGATCACAAATTAGCAGAAGTCAGCC
AAAATATAGAGAACTGCGAGTAGAGACCCAGAAATTTGAGGCCTGGCTGGCTGAGGTTGAAGGCCGGCTCCCAG
CACGCAGCGAGCAGGCGCGCCGGCAGAGCGGACTGTACGACAGCCAGAACCCACCCACAGTCAACAAC TGCGCCC
AGGACCGTGAGAGCCCAGATGGCAGTTACACAGAGGAGCAGAGTCAGGAGAGTGAGATGAAGGTGCTGGCCACGG
ATTTTGACGACGAGTTTGATGATGAGGAGCCCCCTCCCTGCCATAGGGACGTGCAAAGCTCTCTACACATTTGAAG
GTCAGAATGAAGGAACGATTTCCGTAGTTGAAGGAGAAACATTGTATGTCATAGAGGAAGACAAAGGCGATGGCT
GGACCCGCATTTCGGAGAAATGAAGATGAAGAGGGTTATGTCCCCACTTCATATGTCGAAGTCTGTTTGGACAAAA
ATGCCAAAGATTCCTAG

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FIGURE 239

LWNGEEEEPPRRPRARSCEPEEEAARTPGFPPSRGSRGAKGSPGRGTREPRPPRGAPLRVPCTMSWGTELWDQFDN
LEKHTQWGIDILEKYIKFVKERTEIELSYAKQLRNLSKKYQPKKNSKEEEEYKYTSCKAFISNLNEMNDYAGQHE
VISENMA SQIIVDLARYVQELKQERKSNFHDGRKAQQHIETCWKQLESSKRRFERDCKEADRAQQYFEKMDADIN
VTKADVEKARQQAQIRHQMAEDSKADYSSILQKFNHEQHEYYHTHIPNIFQKIQEMEERRIVRMGESMKTYAEVD
RQVIP IIGKCLDGIVKAAESIDQKNSQLVIEAYKSGFEPPGDIEFEDYTQPMKRTVSDNSLSNSRGEKPD LKF
GGKSKGKLWPF I KKNKLMSLLTSPHQPPPPPPASASPSAVPNGPQSPKQQKEPLSHRFNEFMTSKPKIHCFRSLK
RGLSLKL GATPEDFSNLPPEQRRKKLQKVDELNKEIQKEMDQRDAITKMKDVYLKNPQMGPASLDHKLAEVSQ
NIEKLRVETQKFEAWLAEVEGRLPARSEQARRQSGLYDSQNPPTVNNCAQDRESPDGSYTEEQSQESEMKVLATD
FDDEFDDEEPLPAIGTCKALYTFEGQNEGTISVVEGETLYVIEEDKGDGWTRIRRNEDEEGYVPTSYVEVCLDKN
AKDS

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FIGURE 240

TCTAGGCCGGCAGCGCCTCTCCTCCATGGTCCTGTCTGTCTCAGCGCTGTTTTGGGAGCCCGCCGGTGAGGCCGGGC
CACGCTCAGACACTTCGATCGTCGAGTCTGTCACTGGGCATGGCGGGTCAGTTCCGAGCTACGTGTGGGACCCG
CTGCTGATCCTGTCTCGAGATCGTCTCATGCAGACCGTGATTACGGCTCGCTGGGCCTGTGGCTGGCGCTGGTG
GACGGGCTAGTGCGAAGCAGCCCCCTCGCTGGACCAGATGTTGACGCCGAGATCCTGGGCTTTTCCACCCCTCCA
GGCCGGCTCTCCATGATGTCTTCATCCTCAACGCCCTCACCTGTGCCCTGGGCTTGCTGTACTTCATCCGGCGA
GGAAAGCAGTGTCTGGATTTCACTGTCACTGTCCATTTCTTTACCTCCTGGGCTGTGGTTCTACAGCTCCCGT
TTCCCCTCGGCGCTGACCTGGTGGCTGGTCCAAGCCGTGTGCATTGCACTCATGGCTGTATCGGGGAGTACCTG
TGCATGCGGACGGAGCTCAAGGAGATACCCCTCAACTCAGCCCTAAATCCAATGTCTAGAATCAGGCCCTTTGG
ACATCCTGTCTGACACTTTGGGCCCCCTTAACACCTTGGGCTGTCTCAGACCCTCCAGATGAGGTCCAGCCCAGATCTG
AGAGGAACCCCTGGAAATGTGAAGTCTCTGTTGGTTTGGGAGAGATAGTGAGGGCCTGTCAAAGAAGGCAGGTAGC
AGTCAGCATGACAGCTGCAAGAATGACCTCTGTCTGTTGAAGCCTTGGTATCTGAGAGGTCAGGAAGGGGACCTC
TTTGAGGGTAATAACAGAATTGGAACCATGCCACTCTTGAGCCACAATACCTGTCACCAGCCTGTTGTTTAAAGA
GAGAAAAAAATCAAGGATATCTGATTGGAGCAAACCACTTCTTTAGTCATCTGTCTTACCCCCCTGGGACAGCT
GTTACCTTTGCAGTGTGGCCGAATCACAGCAGTTACCTTTGCAGTGTGGCCGAATCACAGCAGTTCTGTTGGAGA
AACGCTTGGTTTTCCGGATCCAGAGCCACAGAAAGAAATGTAGGTGTGAAGTATTAGGCTGTCTGTGAGGGAGAGGA
TGGCAGATGGAGGCATCAAGCACAAGGAAAATGCACAACCTGTGCCCTGTTATACACACGTTTCATGTGCACCCAA
GAACCTATGACTTTCTTCCAGTTCTTCTACCAGGTCCCCATCCTGCTGCCAGCTCTCAACATAGCAGGCCATAG
GACCCAGAGAAGAATCCAGCGTTGCTCAAAGTCTAACCATCATAAAGACACTGCCTGTCTTCTAGGAATGACCA
GGCACCCAGCTCCCACTGGACTCCAATTTTTTTTCTGCCTTATTTAGAATTCTTTGGCGGGAAGGGTATGATGG
GTTCCAGAGACAAGAAGCCCCAACCTTCTGGCCTGGGCTGTGCTGATAGTGTGAGGGAGATAGGAATTTGCTGC
TAAGATTTTTCTTTGGGGTGGAGTTTCTCTGTGAGGGGCTTGACGCTATCCTTCTGTGTATACAAATACAGTA
TTTTCCATGGTTCTGCCTGCACTTACTTTGTAATGCCACGGTTGAGATTGAGAGAGATCAGCGCAGCCAGGCAAG
GGAACTTTAAAGAATTATTAGGCCACCTTCTCCCTTTCTGGACCCAGAGTCATTCTCCATTTGGTTAAAAATA
CTCAGTGCAGGGAACCTTACATCCTGTCTCCTTCACTTGACGCGTCCCCTGCTATGCCTCAGGTGAACCACATA
ATTCTTGGGTTTCCGTTCTACTTGCTAGTGATTTCTGAACATGTTCAATGGAGCGGCACACAGTCTAGACCCAC
TTCCGCATTGAAACCTTCACTGTTCTCTTTGGTTTCTTCAGAGCTTTCCCAAGAGAGCTGTGAGTTTTAGCTG
TCAGTAACACAAATGAGTTTATGGTAACACAAATGAGTTTTGCTATCTCTCTGAGAAGCTCATCTGACCTCCTGA
CTCTCAGCCCTACAGAGTAGGGAGTTGATGCTGACAGGATGAAGATTTAGGAATAAATATGCCTGGGAAGAGACT
GGGAAGGTTCTAGGGTGAGGCACCTCAGTAACTCATGGTACCTTGGCCAAGTTGGAAGGAAGCAGTTTGTTAATG
AGGCACAGTAATCCTGGCTGCAGGGTCTAGGAGGTAAGACCAGCTGGGATGACCTTCCCTGGGTTAATCAATTC
CCTCTAGACAACACAACTGCAGGCATGTGACTAATTTGAAAGAACCCCATCATGTGGCTGCTGTACCCCTTG
ACCAGCCGTGGTGGTGGTTACTCCATCTGTGGTTGGAGCGCTCTTTGGGATTCACCTCAAGGTCTTGTGCTAT
TTTTCTGCATATCTTCTGTGATGACAAATCTCTGTCCCCTGAGTGTTAATTTGATTTTTAGAAATGGCCAAAAGT
CACGTGATCCAACTTTTTTTTCAGTAATATGGAGACTGAGCTGCATGGTAGTTGGGGATCAAAAATATGTGACCT
TAATGAGATTTTTATGATTTCTAAAGTAACAATAAAAGCAGTTTTTAGAGTTGAGTTCCAGAGAGGGCAGGGCAA
TGGCAGTGACATGTTTGTCATTTTAATAATAAATAACATCTATTGAGTGCTTAA

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FIGURE 241

TCGACCCACGCGTCCGGGGAAGGAAAACCTCCAAACACAAGAGGAATTTGGCTATCACTGGAGGAGTGACTTTGT
CGGTCATTGCATCCCCAGTTATTGCTGCAGTTAGTGTTGGTATTGGTGTCCCCATTATGCTGGCATATGTTTATG
GGGTTGTGCCATTTCTCTTTGTCTGGAGGTGGCTGTGGAGTTAGCACAGCCAACGGAAAAGGAGTGAAAATTG
AATTTGATGAAGATGATGGTCCAATCACAGTGGCAGATGCCTGGAGAGCCCTCAAGAATCCCAGCATTGGGGAAA
GCAGCATTGAAGGCTGACTAGTGTATTGAGCACTAGTGGAAAGCCCTACAGATGGACTTAGTGTTATGCAAGGTC
CTTACAGCGAAACGGCCAGCTTTGCAGCCCTCTCAGGGGGCACGCTGAGTGGCGGCATTCTCTCCAGTGGCAAGG
GAAAATATAGCAGGTTAGAAGTTCAAGCCGATGTCCAAAAGGAAATTTTCCCCAAAGACACAGCCAGTCTTGGTG
CAATTAGTGACAACGCAAGCACTCGTGCTATGGCCGGTTCCATAATCAGTTCCTACAACCCACAGGACAGAGAAT
GCAACAATATGGAATCCAAGTGGACATTGAAGCCAAACCAAGCCACTATCAGCTGGTGAGTGGAAGCAGCACGG
AGGACTCGCTCCATGTTTCATGCTCAGATGGCAGAGAATGAAGAAGAAGGTAGTGGTGGCGGAGGCAGTGAAGAGG
ATCCCCCTGCAGACACCAAAGCTGTGAACAGAAAGACTGCCGCGCCAGCAAACCTTGGGACATCAGCCTGGCCC
AGCCTGAAAGCATCCGCACTGACCTAGAGAGTTCTGATGCACAGTCAGACGATGTGCCAGACATCACCTCAGATG
AGTGTGGCTCCCCCGCTCCCATACTGCAGCCTGCCCCCTCGACCCCCAGAGCCCAAGGTGCACCGAGCCCAAGTG
CCCATATGAACCTCTCTGCCCTAGCCGAGGGACAACTGTCTTGAAGCCAGAAGGTGGAGAAGCCAGAGTATGAA
GTGGAATGAATGCTCCTGTTCTGAGAAGCACACTTGTAAGTGCATCTTTTGAATTTTTTTTTTTTTTTTCCAA
GGGTTAGAGATTTATGTATTTTATTTACAGATTCTCTGGTCACAGGTTTTTGCCAGGGAAATTCTGAGAAATT
CACAATTTCTTACCAGATAAAACATGAAAAGTTTGCCGTTAGTCCCCTCCCCTCCCCTCCCTCTTTTATGTTT
AATTTATTAGTTAAACTGATGGCAGCAATCCATGAGGTGTGTCAAAGAGTGACATATGTATGTGTGTATATTGA
ATGCTAAACATATTACTGAAAGACACATTTTAATAAAGATTTCTGTCATAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 242

AGACTCCCTGTCTTTGCGGTTTGGGAGATGATGAGAAACCACAGAATTGCTAGTAGTTTATGTGGAGATCAGGTC
TTCTCCAAGAAAAAAGAAAAAACAACATGGCTGCAAAGGAGAACTGGAGGCAGTGTTAAATGTG
GCCCTGAGGGTGCCAAGCATCATGCTGTTGGATGTCTGTACAGATGGGATGTCAGCTCCTTTTTCCAGCAGATC
CAAAGAAGTAGCCTTAGTAATAACCCCTCTTTTCCAGTATAAGTATTTGGCTCTTAATATGCATTATGTAGGTTAT
ATCTTAAGTGTGGTGCTGCTAACATTGCCAGGCAGCATCTGGTTTCAGCTTTATCTATATTTTTGACTGCTCTG
CTCCTCTATGCTGGACATCAAATTTCCAGGGACTATGTTCCGAGTGAACCTGGAGTTTGCCATGAGGGACCAATG
TATTTAGAACCCTCTCTATGAATCGGTTTACCACAGCCTTAATAGGTCAGTTGGTGGTGTGTACTTTATGCTCC
TGTGTCATGAAAACAAAGCAGATTTGGCTGTTTTCAGCTCACATGCTTCCTCTGCTAGCACGACTCTGCCTTGTT
CCTTTGGAGACAATTGTTATCATCAATAAATTTGCTATGATTTTTACTGGATTGGAAGTTCTCTATTTTTCTTGGG
TCTAATCTTTTGGTACCTTATAACCTTGCTAAATCTGCATACAGAGAATTGGTTCAGGTAGTGGAGGTATATGGC
CTTCTCGCCTTGGGAATGTCCCTGTGGAATCAACTGGTAGTCCCTGTTCTTTTCATGGTTTCTGGCTCGTCTTA
TTTGCTCTTCAGATTTACTCCTATTTTCAGTACTCGAGATCAGCCTGCATCACGTGAGAGGCTTCTTTTCTTTTT
CTGACAAGTATTGCGGAATGCTGCAGCACTCCTTACTCTCTTTTGGGTTTGGTCTTCACGGTTTCTTTTGTGGC
TTGGGTGTTCTCACACTCTGCAAGTTTACTTGCAGGGTTATCGAGCTTTCATGAATGATCCTGCCATGAATCGG
GGCATGACAGAAGGAGTAACGCTGTTAATCCTGGCAGTGCAGACTGGGCTGATAGAAGTGCAGGTTGTTTCATCGG
GCATTCTTGCTCAGTATTATCCTTTTCATTGTCGTAGCTTCTATCTACAGTCTATGTTAGAAATTGCAGATCCT
ATTGTTTTGGCACTGGGAGCATCTAGAGACAAGAGCTTGTGGAACACTTCCGTGCTGTAAGCCTTTGTTTTATT
TTATTGGTATTCCCTGCTTATATGGCTTATATGATTGCCAGTTTTTCCACATGGATTTTGGCTTCTTATCATT
ATTTCCAGCAGCATTCTTACCTCTCTTCAGGTTCTGGGAACACTTTTTATTTATGTCTTATTTATGGTTGAGGAA
TTCAGAAAAGAGCCAGTGGAAAACATGGATGATGTCATCTACTATGTGAATGGCACTTACCGCTGCTGGAGTTT
CTTGTGGCCCTCTGTGTGGTGGCCTATGGCGTCTCAGAGACCATCTTTGGAGAATGGACAGTGTGGGCTCAATG
ATCATCTTCATTTCCTACTATAACGTGTGGCTTCGGGCCAGCTGGGGTGAAGAGCTTTCTTCTCCGCAGG
GATGCTGTGAATAAGATTAAATCGTTACCCATTGCTACGAAAGAGCAGCTTGAGAAACACAATGATATTTGTGCC
ATCTGTTATCAGGACATGAAATCTGCTGTGATCACGCCTTGCACTATTTTTTCCATGCAGGCTGTCTTAAGAAA
TGGCTGTATGTCCAGGAGACCTGCCCTCTGTGCCACTGCCATCTGAAAACTCCTCCCAGCTTCCAGGATTAGGA
ACTGAGCCAGTTCTACAGCCTCATGCTGGAGCTGAGCAAAACGTCATGTTTCAGGAAGGTACTGAACCCCCAGGC
CAGGAGCATACTCCAGGGACCAGGATACAGGAAGGTTCCAGGGACAATAATGAGTACATTGCCAGACGACCAGAT
AACCAGGAAGGGGCTTTTGACCCCAAAGAATATCTCACAGTGCAGAAAGATGAAGCACATCCTGTTGAATCAGCC
TAGAGGAGAAGCAGCAGGAATGATGCTTTGATACTCTGGAGGAGAAGTTAACTCAAGATGGAATTCATGTTCTGA
TTTGAGGAATGAAAATGAGATGATCAGGCAGGAACTGACATTCCAAGGATCTAATCCAGGAAGTACTCTCAGTG
GGGACCACCTGCTTTTCATCCCCTGACATTGTGGGAGAAATTTGCAATGTATGCTAATCAAAATGTATTTATATG
TTCTCTGCTGATGTTTTATAGAGGTTTGTGAAGAAAATTCAACCTCAGCAACTTCAGAAACTGCCCTGTACGT
GTGAGAGAGAAATAAAATCAGATTTTGTGAGTTGAAGGGACTGAGGAAGTGAAGATAAAGAGCATGAGGACAGCA
TGGAAGAAGGAGGCAGAAGTGAAGTGAACCTTCACTCTCCATGGGACAGATCAATCTCATTATCAAGTCTGAA
TAGCAACCAGCCCTCTCCTCCACCCCGTTTCTCCTCAGTTAATTGGAGCTCAGTCAGGTGATTATTGAGTCTTGT
ACAGCACTGAAATGAAATCAAAGATGAAGAAGCATTGATTGTATTGCAAGATTGAAGCACGCTCATACTTTGTAT
GTGCTTTAGGGAAGGGGTGGGTGGGCCTTGGGCCCTTGGGGTGCATTTCATGTAATCTGAGACTCTTGAACCTTA
TGACGGAGTCTTCAATATTTTGTATATGAACTTTTGTAAATATGTTGTATACTTCGCTGGCTGTGTGAAG
TAACTAAAACCTCTGATGAACACTTTGGAGTCTGCTTTAGTGAAGGAGACCAAAGTGGGAAGGGCTTTAGGGCAC
TGATAGAGGCCCTGGGTGTACTTTTCAATCCTGTGTAATGTTTAAATCTTGCAACTGAATCAAAACAGTGTTAA
TTATGGCAATATTTGCACCTTTGGGAATGAGTACATAACTGTATGATCACACTCTGCAAATGCCACTTTTAAAGCT
GTTAATAGACTTTGCACCTTTCTTTGACAAGGATGTGTCATATTTAAATTTTACATTTCATCATGGCTACAGGT
AGAAGTGGGGAGGGGGGAATGTAATTTTTTATGGGAATTTTGATATGAAAAGAACTAGTCATTTATTTATACAA
TAGGCTTGGCTCAAAAAGTGTTTTTTCAGACCTCGGTATTCCTAATGTGGGATGTGACTTTATTTTATTTTAGTA
GCAATTTGGATGTAGACTGACAGACATAGCTGAATGTCTTAATAAATTTAAATTTGAAGAT

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FIGURE 243

MMRNHRIASSLCGDQVFSKKKKKKKKNNMAAKEKLEAVLNVALRVPSIMLLDVLYRWDVSSFFQQIQRSSLSNNP
LFQYKYLALNMHYVGYILSVLLTLPRQHLVQLYLYFLTALLLYAGHQISRDIYVRSELEFAYEGPMYLEPLSMNR
FTTALIGQLVVCTLCSCVMKTKQIWLFSAHMLPLLARLCLVPLETIVIINKFAMIFTGLEVLVYFLGSNLLVPYNL
AKSAYRELQVVEVYGLLALGMSLWNQLVVPVLFMVFWLVLFALQIYSYFSTRDQPASRERLLFLFLTSIAECCS
TPYSLLGLVFTVSFVALGVTLCKFYLQGYRAFMNDPAMNRGMTEGVTLILAVQTGLIELQVVHRAFLLSIILF
IVVASILQSMLEIADPIVLALGASRDKSLWKHFRAVSLCLFLLVFPAYMAYMICQFFHMDFWLLIISSSILTSL
QVLGTLFIYVLFMVVEEFRKEPVENMDDVIYYVNGTYRLLEFLVALCVVAYGVSETIFGEWTVMGSMIIFIHSYYN
VWLRAQLGWKSFLRRDAVNKIKSLPIATKEQLEKHNDICAICYQDMKSAVITPCSHFFHAGCLKKWLYVQETCP
LCHCHLKNSSQLPGLGTEPVLQPHAGAEQNVMFQEGTEPPGQEHTPGTRIQEGSRDNNEYIARRPDNQEGAFDPK
EYPHSAKDEAHPVESA

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FIGURE 244

AAGGGGTTCCAGTACTTCTCTACCCTGGAAGAAGCAGAGAAGCACCTGAGGCAGGAGCCAGGGACCCAGCCCTAC
AACATCAGAGAAGACTCCATTCTGGACCAAAAGGTTGCCCTGCTCAAGGCATAATGGGGCCACCCGTGGGCATCC
ACAGTTTGCAGGGTGTTCCGGAAGGTTCTTGTCACTGTGATTGGATGCTGGATGCCGCCTGATAGACATGCTGGC
CTGGCTGAGAAACCCCTGAGCAGGTAACCCAGGGAAGAGAAGGAAGCCAGGCCTGGAGGTCCACGGCAGTGGGAG
TGGGGCTCACTGGCTTCCTGTGGGATGACTGGAAAATGACCTCGCTGCTGTTCCCTGGCATGACCCTCTTTGGAA
GAGTGGTTTGGAGAGAGCCTTCTAGAATGACAGACTGTGAGAGGAAGCAGGGGCAGGGGTTTCCAGCCCGGGCTG
TGCGAGGCATCCTGGGGCTGGCAGCACCTTCCCGGCTCACCAGTGCCACCTGCGGGGGAGGGACGGGGCAGGCAG
GAGTCTGGGAGGCGGGTCCGCTCCTCTTGTCTGCGGCATCTGTGCTCTCCGAGAGAAAACCAAGGTGTGTCAAAT
GACGTCAAGTCTCTATTTAAAAATAATTTTGTGTTTTCTAAATGGAAAAAGTGATAGCTTTGGTGATTTTGTA
AGTCATAAATGCTTATTGTAAAAAATACAGGAAACCACCCCTCACCTGTCCACTTGGGTGATCATTCCAGACCC
CTCCCCAAACATGCATATGTACCTGTCCGTCAGTGTGTGGATGTATGTTTACAGTTCTACATAAATGGGATCATT
TTATACATGGTGCTCTGGAACCCACATTTTTTCATGCAGTCATTTGCAGTGAATTATTTATTGTGATAATAAATAG
CATTAGAATACAAAAAAAAAAAAAAAAA

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FIGURE 245

CCCCCTTTATTTCTTCTTGCTTTGCGTCTTTAACACCTCTCGACCCTGTCCTCCCCCGCCACTGGAAGTCTTCC
CGTCTCTAAATGGAATTAGTGGAGCCCGAGCCTCTGGTGTAACGCACAGACATGATCCATGGGCGCAGCGTGCT
TCACATTGTAGCAAGTTTAAATCATCCTCCATTTGTCTGGGGCAACCAAGAAAGGAACAGAAAAGCAAACCACCTC
AGAAACACAGAAGTCAGTGCAGTGTGGAACCTGGACAAAACATGCAGAGGGAGGTATCTTTACCTCTCCCAACTA
TCCCAGCAAGTATCCCCCTGACCGGGAATGCATCTACATCATAGAAGCCGCTCCAAGACAGTGCATTGAACCTTTA
CTTTGATGAAAAGTACTCTATTGAACCGTCTTGGGAGTGCAAATTTGATCATATTGAAGTTCGAGATGGACCTTT
TGGCTTTTCTCCAATAATTGGACGTTTCTGTGGACAACAAAATCCACCTGTCATAAAATCCAGTGGAAAGATTTCT
ATGGATTAAATTTTTTGCTGATGGAGAGCTGGAATCTATGGGATTTTCAGCTCGATACAATTTACACCTGGGAG
ACTATTTGTCTACAAGAAATCTCTGGAGTGGCTCTCTTAACTAAAAACTCTGGCCAGTGATCTACATTGGGAAA
GCCATCTCACTTCTGTGTGTAAGAGAAGACATGTGTGTTTCAGCATCCAACCTCCTCAGAGCTGCGCAAGCAGATAT
CCTGACTTTAAGGACCTTGGAGCTTTGAAACCATTACCAGCGTGTGAGTTTGAGATGGGCGGTTCCGAAGGAATT
GTGGAGTCTATACAAATTATGAAGGAAGGCAAAGCTACTGCTAGCGAGGCTGTTGATTGCAAGTGGTACATCCGA
GCACCTCCACGGTCCAAGATTTACTTACGATTCTTGGACTATGAGATGCAGAATTCAAATGAGTGAAGAGGAAT
TTTGTGGCTGTGTATGATGGAAGCAGTTCCTGTTGAGGATTTGAAAGCTAAGTTCTGTAGCACTGTGGCTAATGAT
GTCATGCTACGCACGGTCTTGGGGTGATCCGCATGTGGGCAGATGAGGGCAGTCGAAACAGCCGATTTTCAGATG
CTCTTCACATCCTTTCAAGAACCTCCTTGTGAAGGCAACACATTCTTCTGCCATAGTAACATGTGTATTAATAAT
ACTTTGGTCTGCAATGGACTCCAGAACTGTGTGTATCCTTGGGATGAAAATCACTGTAAAGAGAAGAGGAAAACC
AGCCTGCTGGACCAGCTGACCAACACCAGTGGGACTGTCAATTGGCGTGACTTCCTGCATCGTGATCATCCTCATT
ATCATCTCTGTCACTCGTACAGATCAAACAGCCTCGTAAAAAGTATGTCCAAAGGAAATCAGACTTTGACCAAGACA
GTTTTCCAGGAGGTATTTGAACCTCCTCATTATGAGTTATGCACTCTCAGAGGGACAGGAGCTACAGCTGAATTT
GCAGATGTGGCAGATGACTTTGAAAATTACCATAAACTGCGGAGGTCACTTCCAAATGCATTCATGACCATCAC
TGTGGATCACAGCTGTCCAGCACTAAAGGCAGCCGCAGTAACCTCAGCACAAGAGATGCTTCTATCTTGACAGAG
ATGCCACACAGCCAGGAAAACCCCTCATCCCACCCATGAACAGAAGAAATATCCTTGTCATGAAACACAACCTAC
TCGCAAGATGCTGCAGATGCCTGTGACATAGATGAAATCGAAGAGGTGCCGACCACCAGTCACAGGCTGTCCAGA
CACGATAAAGCCGTCCAGCGGTTCTGCCTCATTGGGTCTCTAAGCAAACATGAATCTGAATACAACACAACCTAGG
GTCTAGAAAAGAAAATTCAAGAGAAGAACTATTTATACAAACATGGGGACTGTGAAAAGAAAATTCTATAGTGAAT
TGTGAAAAGTGGACATATTTCTAAATTCATTCCACTGCCTTTATCCAAACTTAAGAATTACAGACATTTGTTATT
CCTTCGGCAAGACATCCCCGCTGCACACTGATATGTTTCATTTCGTAATTTGGTTGCTGGCCACCAAGTGCTCCTT
AGTTTTTTAAATACATTTTGAGATTAACTGGAACCTTGAAGAAGAAATTAGTTCCCGATTAAAGACTATCCCACTT
TATTTTTATTGTGAGTTTCACTTTTGTCTATGTTGTTTTATGTCTTTGTTATATAATTGTACATTGTGTGATA
TGTGAAAAAAAACACGAATTTGGATGAACCTTG

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FIGURE 246

MIHGRSVLHIVASLIILHLSGATKKGTEKQTTSETQKSVQCGTWTKHAEGGIFTSPNYP
SKYPPDRECIYIIIEAA
PRQCIELYFDEKYSIEPSWECKFDHIEVRDGPFGFSPIIGRFCGQONPPVIKSSGRFLWIKFFADGELESMGFS
A
RYNFTP

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FIGURE 247A

CGCTCGCTCGCAGAGAAGCCGCGGCCCATGGAGCCCGCCGGCCCCGGCCCCCGCCGCGCTCGGGCCGCTGCTCTGC
CTGCTGCTCGCCGCGTCTGCGCCTGGTCAGGAGTGGCGGGTGAGGAGGAGCTGCAGGTGATTACGCCTGACAAG
TCCGTGTTGGTTGCAGCTGGAGAGACAGCCACTCTGCGCTGCACTGCGACCTCTCTGATCCCTGTGGGGCCATC
CAGTGGTTTCAGAGGAGCTGGACCAGGCCGGGAATTAATCTACAATCAAAAAGAAGGCCACTTCCCCCGGGTAACA
ACTGTTTCAGACCTCACAAAGAGAAACAACATGGACTTTTCCATCCGCATCGGTAACATCACCCAGCAGATGCC
GGCACCTACTACTGTGTGAAGTTCCGGAAAGGGAGCCCCGATGACGTGGAGTTTAAGTCTGGAGCAGGCACTGAG
CTGTCTGTGCGCGCCAAACCCTCTGCCCCCGTGGTATCGGGCCCTGCGGCGAGGGCCACACCTCAGCACACAGTG
AGCTTCACCTGCGAGTCCACGGCTTCTCACCCAGAGACATCACCTGAAATGGTTCAAAAATGGGAATGAGCTC
TCAGACTTCAGACCAACGTGGACCCCGTAGGAGAGAGCGTGTCTACAGCATCCACAGCACAGCCAAGGTGGTG
CTGACCCGCGAGGACGTTCACTCTCAAGTCATCTGCGAGGTGGCCACGTCACCTTGAGGGGGACCCTCTTCGT
GGGACTGCCAACTTGTCTGAGACCATCCGAGTTCCACCCACCTTGGAGGTTACTCAACAGCCCGTGAGGGCAGAG
AACCAGGTGAATGTCACCTGCCAGGTGAGGAAGTTTACCCCCAGAGACTACAGCTGACCTGGTTGGAGAATGGA
AACGTGTCCCGACAGAAACGGCCTCAACCGTTACAGAGAACAAGGATGGTACCTACAACCTGGATGAGCTGGCTC
CTGGTGAATGTATCTGCCCACAGGGATGATGTGAAGCTCACCTGCCAGGTGGAGCATGACGGGCAGCCAGCGGTC
AGCAAAAGCCATGACCTGAAGGTCTCAGCCACCCGAAGGAGCAGGGCTCAAATACCGCCGCTGAGAACACTGGA
TCTAATGAACGGAACATCTATATTGTGGTGGGTGTGGTGTGCACCTTGCTGGTGGCCCTACTGATGGCGGCCCTC
TACCTCGTCCGAATCAGACAGAAGAAAGCCAGGGCTCCACTTCTTCTACAAGGTTGCATGAGCCCGAGAAGAAT
GCCAGAGAAATAACACAGGACACAAATGATATCATATATGCAGACCTGAACCTGCCCAAGGGGAAGAAGCCTGCT
CCCCAGGCTGCGGAGCCCAACAACCACACGGAGTATGCCAGCATTACAGACCAGCCCGCAGCCCGCGCTCGGAGGAC
ACCCTCACCTATGCTGACCTGGACATGGTCCACCTCAACCGGACCCCCAAGCAGCCGGCCCCCAAGCCTGAGCCG
TCCTTCTCAGAGTACGCCAGCGTCCAGGTCCCAGGAAGTGAATGGGACCGTGGTTTGCTCTAGCACCCATCTCT
ACGCGCTTTCTGTCCCACAGGGAGCCGCGCTGATGAGCACAGCCAACCCAGTTCCCGGAGGGCTGGGGCGGTGC
AGGCTCTGGGACCCAGGGGCCAGGGTGGCTCTTCTCTCCCCACCCCTCCTTGGCTCTCCAGCACTTCTTGGGCAG
CCACGGCCCCCTCCCCCACATTGCCACATACCTGGAGGCTGACGTTGCCAAACCAGCCAGGGAACCAACCTGGG
AAGTGGCCAGAACTTCTGGGGTCCAAGAACTCTTGTGCTCCGTCCATCACCATGTGGGTTTTGAAGACCCTCG
ACTGCCTCCCCGATGCTCCGAAGCCTGATCTTCCAGGTGGGGAGGAGAAAAATCCACCTCCCCTGACCTCCACC
ACCTCCACC
CCCCCTTTAGATCAAACCTGCCCCCTTCCATGGAAAAGCTGGAAAAAACTCTGGAACCCATATCCAGGCTTGGTGAG
GTTGCTGCCAACAGTCTTGGCTCCCCATCCCTAGGCTAAAGAGCCATGAGTCTTGGAGGAGGAGAGGACCCCT
CCCAAAGGACTGGAGACAAAACCCTCTGCTTCTTGGGTCCCTCCAAGACTCCCTGGGGCCCAACTGTGTGCTC
CACCCGACCCATCTCTCCCTTCTAGACCTGAGCTTGCCCTCCAGCTAGCACTAAGCAACATCTCGCTGTGGAC
GCCTGTAAATTACTGAGAAATGTGAAACGTGCAATCTTGAAACTGAGGTGTTAGAAAACCTTGATCTGTGGTGT
TGTTTTGTTTTTTTTCTTAAACAACAGCAACGTGATCTTGGCTGTCTGTGATGTGTTGAAGTCCATGGTTGGGT
CTTGTGAAGTCTGAGGTTTAACAGTTTGTGTCTTGGAGGGATTTTCTTACAGCGAAGACTTGAGTTCTCCAAG
TCCAGAACCCCAAGAATGGGCAAGAAGGATCAGGTCAGCCACTCCCTGGAGACACAGCCTTCTGGCTGGGACTG
ACTTGGCCATGTTCTCAGCTGAGCCACGCGGCTGGTAGTGAGCCTTCTGTGACCCCGCTGTGGTAAGTCCAGCC
TGCCCAGGGCTGCTGAGGGCTGCCTCTTGACAGTGCAGTCTTATCGAGACCCAACGCCCTCAGTCTGCTCATCCGT
AAAGTGGGGATAGTGAAGATGACACCCCTCCCCACCACCTCTCATAAGCACTTTAGGAACACACAGAGGGTAGGG
ATAGTGGCCCTGGCCGCTCTATCTTACCCCTTTAGTGACCGCCCCCATCCCGGCTTTCTGAGCTGATCCTTGAAGA
AGAAATCTTCCATTTCTGCTCTCAAACCTTACTGGGATCAAACCTGGAATAAATTGAAGACAGCCAGGGGGATGGT
GCAGCTGTGAAGCTCGGGCTGATTCCCCCTCTGTCCAGAAGGTTGGCCAGAGGGTGTGACCCAGTTACCCTTTA
ACCCCCACCCTTCCAGTCGGGTGTGAGGGCCTGACCGGGCCAGGGCAAGCAGATGTGCAAGCCCTATTTATTC
AGTCTTCACTATAACTCTTAGAGTTGAGACGCTAATGTTTATGACTCCTGGCCTTGGGATGCCAAGGGATTTCT
GGCTCAGGCTGTAAAAGTAGCTGAGCCATCCTGCCATTCTTGGAGGTCTACAGGTGAAACTGCAGGAGCTCAG
CATAGACCCAGCTCTCTGGGGGATGGTCACCTGGTGATTTCAATGATGGCATCCAGGAATTAGCTGAGCCAACAG
ACCATGTGGACAGCTTTGGCCAGAGCTCCCGTGTGGCATCTGGGAGCCACAGTGACCCAGCCACCTGGCTCAGGC
TAGTTCCAAATTCCAAAAGATTGGCTTGTAACCTTCGTCTCCCTCTCTTTTACCCAGAGACAGCACATACGTGT
GCACACGCATGCACACACACATTCAGTATTTTAAAGAATGTTTTCTTGGTGCCATTTTCATTTTATTTTATTTT

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FIGURE 247B

TTAATTCTTGGAGCGGGAAATAAGGGAATAAGGCCAAGGAAGATGTATAGCTTTAGCTTTAGCCTGGCAACCTGG
AGAATCCACATACCTTGTGTATTGAACCCAGGAAAAGGAAGAGGTCGAACCAACCCTGCGGAAGGAGCATGGTT
TCAGGAGTTTATTTTAAGACTGCTGGGAAGGAAACAGGCCCATTTTGTATATAGTTGCAACTTAACTTTTTTGG
CTTGCAAAATATTTTGTATAAAGATTTCTGGGTAATAAAAAAAAAA

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FIGURE 248

MEPAGPAPGRLGPLLCLLLAASCAWSGVAGEEELQVIQPDKSVLVAAGETATLRCTATSLIPVGPIQWFRGAGPG
RELIYNQKEGHFPRVTTVSDLTRNNMDFSIRIGNITPADAGTYICVKFRKGSPDDVEFKSGAGTELSVRAPSA
PVVSGPAARATPQHTVSFTCESHGFSRPDITLKWFKNGNELSDFTNVDPVGESVSYSIHSTAKVVLTRDVDHSQ
VICEVAHVTLQGDPLRGTANLSETIRVPPTLEVTTQPPVRAENQVNVTCQVRKFYPQRLQLTWLENGNVSRTETAS
TVTENKDGTYNWMWLLVNVSAHRDDVKLTQVEHDGQPAVSKSHDLKVSAPKPEQGSNTAAENTGSNERNIYIV
VGVVCTLLVALLMAALYLVRIRQKKAQGSTSSTRLHEPEKNAREITQDTNDITYADLNLPKGKKPAPQAAEPNNH
TEYASIQTSPPASEDTLTADLDMVHLNRTPKQPAPKPEPSFSEYASVQVPRK

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FIGURE 249

CGGAAGTTCTGGACTGCAGTTGAGTGGAATGGGCAACGGCGGGCGGAGCGGCCTGCAGCAGGGGAAGGGGAACG
TGGATGGGGTGGCAGCGACTCCTACTGCTGCCTCGGCCTCCTGCCAGTACAGGTGCATCGAATGCAACCAGGAGG
CCAAAGAGTTGTACCGAGACTATAACCACGGTGTGCTGAAGATAACCATCTGTAAATCCTGCCAGAAACCTGTAG
ACAAATATATCGAGTATGATCCTGTTATCATCTTGATTAATGCTATATTGTGCAAAGCTCAGGCCTACAGACATA
TTCTTTTCAATACTCAAATAAATATCCATGGAAAACCTGTCATATTTTGTGTTGCTTTGTGAAGCATACCTGAGGT
GGTGGCAGCTTCAAGATTCCAACCAGAATACTGCCCTGATGACTTGATCAGATATGCTAAGGAATGGGATTTCT
ATAGAATGTTTTCGATTGCTGCTTTAGAACAACTGCCTATTTTATTGGCATTTTTACCTTCCTGTGGGTAGAAC
GGCCCATGACGGCAAAAAAAAAAGCCCACTTCATTTTGCTGCTGAAAGCATTATTATTATCTAGCTACGGAAAAC
TCTTGCTGATTCCAGCTGTCATTTGGGAACATGACTACACATCTGTGTGCCTCAAACCTATTAAAGTATTTGTTC
TTACATCAAATTTTCAGGCAATTAGAGTGACCCTAAACATCAACCGTAAGCTCTCCTTCTTGGCCGTGTTGAGTG
GCTTACTGCTGGAAAGCATCATGGTCTACTTCTTCAGAGTATGGAATGGGATGTTGGAAGTGATTATGCCATCT
TTAAATCTCAGGACTTCTGAAGAGTTTTATTCTTCTTCACTATCTGTGGCATGACCAGCTGTATCTGAAAGAGAA
AAGACATGAAATATAAACCAACCTCCTCATTCTGTTGAGTAAATGAAGCAAAGATTGGAAACACTTTCTGAAA
AAGAAAGCAATGATAATAGCGGTGGATACCCACCCCAACAAATGCACCCAAGAGACAAGCCATTTACATACAGAT
ATTCACAGTCACACATAGAAACACCCACATGGACACAAGGAATGTTGCTGCAGAGACTGAATGACATGCAACAGG
TGAAGGTTTATACGTTATACACAAGGCCAGGTAAGCGCTCATAATTCACACATAATAAAACATCTAGGTTTCATT
CCTTTGACATGTTTATATCTTTTAAATTTAAATGTTGTTACTGGCTTAAATATTTTGTGTTCTTACAATAGAAA
CGCTTTTAAATAAAGTCTTTCAGAATAAACCAAGTTTTTGTAATTTTCAATTCAATAATTAAGGTAATCTTTAAA
ATTGGATGATCCAAAAATAAGTGATAATGAAAACCACTGAGTTATATACTTTGCAAGGGTAAATTACATCTGAAT
AAAGCTGTAATTA AAAACAAAAA

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FIGURE 250

MGNNGGRSGLQQGKGNVDGVAATPTAASASCQYRCIECNQEAKELYRDYNHGVLKITICKSCQKPVDKYIEYDPVI
ILINAILCKAQAYRHILFNTQINIHGKLCIFCLLCEAYLRWWQLQDSNQNTAPDDLIRYAKEWDFYRMFAIAALE
QTAYFIGIFTFLWVERPMTAKKKPNFILLKALLSSYGKLLIPAVIWEHDYTSVCLKLIKVFVLTSNFAQIRV
TLNINRKLSFLAVLSGLLLESIMVYFFQSMEDVGSDYAIFKSQDF

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FIGURE 251

GGGGCAGCGCAGGGCAGACGGCGGCAGGAGAAGCAAGATGAATGCAGGCTCAGATCCTGTGGTCATCGTCTCGGC
GGCGCGGACCATCATAGGTTCCCTTCAATGGTGCCTTAGCTGCTGTTCCGTGCCAGGACCTGGGCTCCACTGTCAT
CAAAGAAGTCTTGAAGAGGGCCACTGTGGCTCCGGAAGATGTGTCTGAGGTCATCTTTGGACATGTCTTGGCAGC
AGGCTGTGGGCAGAAATCCTGTGTAGACAAGCCAGTGTGGGTGCAGGAATCCCTACTCTGTTCCAGCATGGAGCTG
CCAGATGATCTGTGGGTGAGGCCTAAAAGCTGTGTGCCTTGCAGTCCAGTCAATAGGGATAGGAGACTCCAGCAT
TGTGGTTGCAGGAGGCATGGAAAATATGAGCAAGGCTCCTCACTTGGCTTACTTGAGAACAGGAGTAAAGATAGG
TGAGATGCCACTGACTGACAGTATACTCTGTGATGGTCTTACAGATGCATTTCACTGTCATATGGGTATTAC
AGCTGAAAATGTAGCCACAAAATGGCAAGTGAGTAGAGAAGATCAGGACAAGGTTGCAGTTCTGTCCAGAACAG
GACAGAGAATGCACAGAAAGCTGGCCATTTTGACAAAGAGATTGTACCAAGTTTTGGTGTCAACTAGAAAAGGTCT
TATTGAAGTTAAAACAGATGAGTTTCTCGCCATGGGAGCAACATAGAAGCCATGTCCAAGCTAAAGCCTTACTT
TCTTACTGATGGAACGGGAACAGTCAACCCAGCCAATGCTTCAGGAATAAATGATGGTGTGCTGAGCTGTTGCTCT
TATGAAGAAGTCAGAAGCTGATAAACGTGGGCTTACACCTTTAGCACGGATAGTTTCTGGTCCCAAGTGGGTGT
GGAGCCTTCCATTATGGGAATAGGACCAATTCCAGCCATAAAGCAAGCTGTTACAAAAGCAGGTTGGTCACTGGA
AGATGTTGACATATTTGAAATCAATGAAGCCTTTGCAGCTGTCTCTGCTGCAATAGTTAAAGAACTTGGATTAAA
CCCAGAGAAGGTCAATATTGAAGGAGGGGCTATAGCCTTGGGCCACCTCTTGGAGCATCTGGCTGTGCAATTCT
TGTGACCCTGTTACACACACTGGAGAGAATGGGCAGAAGTCGTGGTGTGTCAGCCCTGTGCATTGGGGGTGGGAT
GGGAATAGCAATGTGTGTTTCAAGAGAGAATGACAATGTGTGTTTCAAGAGAGAATGAATTGCTTAACTTTGAACAAC
CTCAATTTCTTTTAACTAATAAAGTACTAGGTTGCAATATGTGAAATCAGAGGACCAAGTACAGATGGAAAC
CATTTCTACATCACAAAACCCAAGTTTACAGCTTGTACTTTACTTTAATGTGTAATACTCACTCACGGTACA
AGACAATTGCATTTAACATTGTTATAAATAAAAGGAACATCAGATCAATCATTAATAAAAAAAAAA

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FIGURE 252

MNAGSDPVVIVSAARTIIGSFNGALAAVPVQDLGSTVIKEVLKRATVAPEDVSEVIFGHVLAAGCGQNPVRQASV
GAGIPYSVPAWSCQMICGSGLKAVCLAVQSIGIGDSSIVVAGGMENMSKAPHLAYLRTGVKIGEMPLTDSILCDG
LTDAFHNCHMGITAENVATKWQVSREDQDKVAVLSQNRTEAQAAGHFDKEIVPVLVSTRKGLIEVKTDEFPRHG
SNIEAMSKLKPYPFLTDGTGTVTPANASGINDGAAVALMKKSEADKRGLTPLARIVSWSQVGVEPSIMGIGPIPA
IKQAVTKAGWSLEDVDIFEINEAFAAVSAAIVKELGLNPEKVNIEGGAIALGHPLGASGCRIILVTLHTLERMGR
SRGVAALCIGGGMGIAMCVQRE

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FIGURE 253

AATCGCGAAACCCGCGAGCGGCGCGCTGGCTATCGAGCGAGCGGGGCGGAACCGGGAGTTGCGCCGCCGCTCGG
GCGCCGGGCTCCGTGCGGGCCGAGCCCCGCGGGTCGCCCTCCCGTGCCCTCGCCCGCGGACACCCTGGCCGTGGA
CACCCTGGCCGTGGGCACCCGCGGGGCGCGGCGCGGGCGCTGCGCGGCGGCGGCGGGCGGCATGAAGGTCACGTCG
CTCGACGGGCGCCAGCTGCGCAAGATGCTCCGCAAGGAGGCGGCGGCGCGCTGCGTGGTGCTCGACTGCCGGCCCC
TATCTGGCCTTCGCTGCCTCGAACGTGCGCGGCTCGCTCAACGTCAACCTCAACTCGGTGGTGCTGCGGCGGGCC
CGGGGCGGCGCGGTGTGCGGCGGCTACGTGCTGCCCGACGAGGCGGCGCGCGCGGCTCCTGCAGGAGGGCGGC
GGCGGCGTTCGCGGCCGTGGTGGTGCTGGACCAGGGCAGCCGCCACTGGCAGAAGCTGCGAGAGGAGAGCGCCGCG
CGTGTCGTCTACCTCGCTACTCGCTTGCCCTACCCGCGGGCCCGCGGGTCTACTTCCTCAAAGGGGGATATGAG
ACTTTCTACTCGGAATATCCTGAGTGTTGCGTGGAATGTAAACCCATTTCACAAGAGAAGATTGAGAGTGAGAGA
GCCCTCATCAGCCAGTGTGGAACACAGTGGTAAATGTGAGCTACAGGCCAGCTTATGACCAGGGTGGCCAGTT
GAAATCCTTCCCTTCTCTACCTTGGAAGTGCCTACCATGCATCCAAGTGCGAGTTCTCGCCAACCTGCACATC
ACAGCCCTGCTGAATGTCTCCCGACGGACCTCCGAGGCCTGCATGACCCACCTACACTACAAATGGATCCCTGTG
GAAGACAGCCACACGGCTGACATTAGCTCCCACTTCAAGAAGCAATAGACTTCATTGACTGTGTGAGGAAAAG
GGAGGCAAGGTCCTGGTCCACTGTGAGGCTGGGATCTCCCGTTCACCCACCATCTGCATGGCTTACCTTATGAAG
ACCAAGCAGTTCGCGCTGAAGGAGGCCTTCGATTACATCAAGCAGAGGAGGAGCATGGTCTCGCCCAACTTTGGC
TTCATGGGCCAGCTCCTGCAGTACGAATCTGAGATCCTGCCCTCCACGCCCAACCCCCAGCCTCCCTCCTGCCAA
GGGGAGGCAGCAGGCTCTTCACTGATAGGCCATTTGCAGACACTGAGCCCTGACATGCAGGGTGCCTACTGCACA
TTCCCTGCCTCGGTGCTGGCACCAGGTGCCTACCCACTCAACAGTCTCAGAGCTCAGCAGAAGCCCTGTGGCAACG
GCCACATCCTGCTAAACTGGGATGGAGGAATCGGCCCAGCCCCAAGAGCAACTGTGATTTTTGTTTTTAAGACT
CATGGACATTTACATACCTGTGCAATACTGAAGACCTCATTCTGTGATGCTGCCCCAGTGAGATAGTGAGTGGTCA
CCAGGCTTGCAAATGAACCTCAGACGGACCTCAGGGTAGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGG
AGCACAGCATGTGCTGACTACTGTACTTCCAGACCCCTGCCCTCTTGGGACTGCCCAGTCCTTGACCTCAGAQT
TCGCCTTTTCATTTCAAGCATAAGCCAATAAATACCTGCAGCAACGTGGGAGAAAGAAGTTGCTGGACCAGGAGA
AAAGGCAGTTATGAAGCCAATTCATTTTGAAGGAAGCACAAATTTCCACCTTATTTTTTGAACCTTTGGCAGTTTCA
ATGTCTGTCTCTGTTGCTTCGGGGCATAAGCTGATACCGTCTAGTTGGGAAAGTCACCCTACAGGGTTTGTAGG
GACATGATCAGCATCCTGATTTGAACCCTGAAATGTTGTGTAGACACCCTCTTGGGTCCAATGAGGTAGTTGGTT
GAAGTAGCAAGATGTGGCTTTTCTGGATTTTTTTTGCCATGGGTTCTTCACTGACCTTGGACTTTGGCATGATT
CTTAGTCATACTTGAACCTGTCTCATTCCACCTCTTCTCAGAGCAACTCTTCCTTTGGGAAAAGAGTTCTTCAGA
TCATAGACCAAAAAAGTCATACCTTCGAGGTGGTAGCAGTAGATTCCAGGAGGAGAAGGGTACTTGCTAGGTATC
CTGGGTCACTGGCGGTGCAAACCTGGTTTCTCAGCTGCCTGTCTTCTGTGTGCTTATGTCTCTTGTGACAATTG
TTTTTCTCCCTGCCCTGGAGGTTGTCTCAACTGTGGACTTCTGGGATTTGCAGATTTTGCAACGTGGTACTAC
TTTTTTTTCTTTTTGTCTGTTAGTTATTTCTCCAGGGGAAAAGGCAATAATTTCTAAGACCCGTGTGAATGTGA
AGAAAAGCAGTATGTTACTGGTTGTTGTTGTTGTTCTTGTTTTTATATGTAAATAAAAAATAGTGAAAGGAG

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FIGURE 254

MKVTSLDGRQLRKMLRKEAAARCVVLD CRPYLAFAASNVRGSLNVNLNSVVLRRARGGAVSARYVLPDEAARARL
LQEGGGGVA AVVLDQGSRHQKLREESAARVLT SLLACLPAGPRVYFLKGGYETFYSEYPECCVDVKPISQEK
IESERALISQCGKPVVNVSYRPAVDQGGPVEILPFLYLGSAYHASKCEFLANLHITALLNVSRRRTSEACMTHLHY
KWIPVEDSHTADISSHFQE AIDFIDCVREKGGKVLVHCEAGISRSPTICMAYLMKTKQFRLKEAFDYIKQRRSMV
SPNFGFMGQLLQYESEILPSTPNFPQPSCQGEAAGSSLIGHLQTLSPDMQGAYCTFPASVLAPVPTHSTVSELSR
SPVATATSC

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FIGURE 255

TTCTCACTATACTGGTCCTGAGGAAAGGGCTTCTGTGAACTGCGGTTTTTAGTTTTTATTGTGGTTCTTAGTTCT
CATGAGACCCCTCTTGAGGATATGTGCCTATCTGGTGCCTCTGCTCTCCACTAGTTGAGTGAAAGGAAGGAGGTA
ATTTACCACCATGTTTGGTTCCCTGTTTATAAGATGTTTTAAGAAAGATTTGAAACAGATTTTCTGAAGAAAGCAG
AAGCTCTCTTCCCATTAATGACTTCGGAAATCACTTATGCTGAAGTGAGGTTCAAAAAATGAATTCAAGTCCTCAGG
CATCAACACAGCCTCTTCTGCAGCTTCCAAGGAGAGGACTGCCCCTCACAAAAGTAATACCGGATTCCCCAAGCT
GCTTTGTGCCTCACTGTTGATATTTTTCTGCTATTGGCAATCTCATTCTTTATTGCTTTTGTCAATTTCTTTCA
AAAATATTCTCAGCTTCTTGAAAAAAGACTACAAAAGAGCTGGTTCATACAACATTGGAGTGTGTGAAAAAAA
TATGCCCCGTGGAAGAGACAGCCTGGAGCTGTTGCCCAAAGAATTGGAAGTCATTTAGTTCCAAGTCTACTTTAT
TTCTACTGAATCAGCATCTTGGCAAGACAGTGAGAAGGACTGTGCTAGAATGGAGGCTCACCTGCTGGTGATAAA
CACTCAAGAAGAGCAGGATTTTCATCTTCCAGAATCTGCAAGAAGAATCTGCTTATTTTGTGGGGCTCTCAGATCC
AGAAGGTCAGCGACATTGGCAATGGGTTGATCAGACACCATAACAATGAAAGTTCACATTCTGGCATCCACGTGA
GCCCAGTGATCCCAATGAGCGCTGCGTTGTGCTAAATTTTCGTAAATCACCCAAAAGATGGGGCTGGAATGATGT
TAATTGTCTTGGTCCTCAAAGGTCAGTTTGTGAGATGATGAAGATCCACTTATGAACTGAACATTCTCCATGAAC
AGGTGGTTGGATTGGTATCTGTCATTGTAGGGATAGATAATAAGCTCTTCTTATTCATGTGTAAGGGAGGTCCAT
AGAATTTAGGTGGTCTGTCAACTATTCTACTTATGAGAGAATTGGTCTATACATTGACTGATTCACTTTTTTCATA
AAGTGAGCATTATTTGAGCATTTTTTCATGTGCCAGAGCCTGTACTGGAGGCCCCCATTTGTGCACACAGGGAGAG
AACATGAGTCTCTCTTAATTTTTATCTGGTTGCTAAAGAATTATTTACCATTAAATTATATGGTGTGGTGT

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FIGURE 256

MTSEITYAEVRFKNEFKSSGINTASSAASKERTAPHKSNTGFPKLLCASLLIFFLLLAI SFFIAFVIF FQKYSQL
LEKKTTELKELVHTTLECVKKNMPVEETAWSCCPKNWKSFSSNCYFISTESASWQDSEKDCARMEAHLLVINTQEEQ
DFIFQNLQEE SAYFVGLSDPEGQRHWQWVDQTPYNESSTFWHPREPSDPNERCVVLNFRKSPKRWGWNDVNCLGP
QRSVCEMMKIHL

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FIGURE 257

TTCCTCAGAAACGAGCAAACCTGAAAGCTACTCTCTCAGCTTCAGAGGGAAAAAATGGTTGTAGATTTCTGGACT
TGGGAGCAGACATTTCAAGAACTAATCCAAGAGGCAAAACCCCGGGCCACATGGACGCTGAAGTTGGATGGCAAC
CTTCAGCTAGACTGCCTGGCTCAAGGGTGGAAGCAATACCAACAGAGAGCATTGGCTGGTTCCGGTGTTCTCTCC
TGCCAGCGAAGTTGGGCTTCCGCCAAGTTGCAGATTCTGTGCCACACGTAAGGGAGCACTGGACATCCCAGGGT
CAGGTGCGTATGAGGCTCTTTGGCCAAAGGTGCCAGAAGTGCTCCTGGTCCCAATATGAGATGCCTGAGTTCTCC
TCGGATAGCACCATGAGGATTCTGAGCAACCTGGTGCCAGCATATACTGAAGAAATACTATGGAAATGGCATGAGG
AAGTCTCCAGAAATGCCAGTAATCCTGGAAGTGTCCTGGAAGGATCCCATGACACAGCCAATTGTGAGGCATGC
ACTTTGGGCATATGTGGACAGGGCTTAAAAAGCTACATGACAAAGCCGTCCAAATCCCTACTCCCCACCTAAAG
ACTGGGAATTCCTCACCTGGAATTGGTGCTGTGTACCTCGCAAACCAAGCCAAGAACCAGTCAGATGAGGCAAAA
GAGGCTAAGGGGAGTGGGTATGAGAAATTAGGGCCCAGTCGAGACCCAGATCCACTGAACATCTGTGTCTTTATT
TTGCTGCTTGTATTTATTGTAGTCAAATGCTTTACATCAGAAATGATGAAAAATAGGCTTGCCACTTTCTCTTATTT
TAATTCCATGGTAGTCAATGAAGTGGCTGCCACTTTAATATACTGAAAATTCATTTTGAGACCAAGCAGGATCA
AGTTTGTAGAATAAACACTGGTTTCTAGCTATCC TCTGAAAACAGTATGAAACATGACCAAGTACATAATGGAT
TTAGTAATAAATATTGTGAATTGCTAAAAA

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FIGURE 258

MVVDFTWEQTFQELIQEAKPRATWTLKLDGNLQLDCLAQGKQYQQRAFGWFRCSSCQRSWASAKLQILCHTYW
EHWTSQGQVRMRLFGQRCQKCSWSQYEMPEFSSDSTMRIISNLVQHILKKYYGNGMRKSPEMPVILEVSLEGSHD
TANCEACTLGICGQGLKSYMTPSKSLLPHLKTGNSSPGIGAVYLANQAKNQSDEAKEAKGSGYEKLGPSRDPDP
LNICVFILLLVFIVVKCFTSE

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FIGURE 259

GGGGCATT TTTGTGCCTGCCTAGCTATCCAGACAGAGCAGCTACCCTCAGCTCTAGCTGATACTACAGACAGTACA
ACAGATCAAGAAGTATGGCAGTGACAACCTCGTTTGACACGGTTGCACGAAAAGATCCTGCAAAATCATT TTTGGAG
GGAAGCGGCTTAGCCTTCTCTATAAGGGTAGTGCCATGGATTCCGTAATGGAGTTTGTCTTGACAGATGTTGTA
ATCAAGGGCCTACTCTAACAGTGATTTATAGTGAAGATCATATTATTGGAGCATATGCGGAAGAGAGTTACCAGG
AAGGAAAGTATGCTTCCATCATCCTTTTTTGCACTTCAAGATACTAAAAATTCAGAATGGAACTAGGACTATGTA
CACCAGAAACACTGTTTTGTTGTGATGTTACAAAATATAACTCCCCAACTAATTTCCAGATAGATGGAAGAAATA
GAAAAGTGATTATGGACTTAAAGACAATGGAAAATCTTGGACTTGCTCAAAATTTGTACTATCTCTATTTCAGGATT
ATGAAGTTTTTCGATGCGAAGATTCACITGGATGAAAGAAAGATAAAAAGGGGTCATTGAGCTCAGGAAGAGCTTAC
TGTCTGCCTTGAGAACTTATGAACCATATGGATCCCTGGTTCAACAAATACGAATTCCTGCTGCTGGGTCCAATTG
GAGCTGGGAAGTCCAGCTTTTTCAACTCAGTGAGGTCTGTTTTCCAAGGGCATGTAACGCATCAGGCTTTGGTGG
GCACTAATACAACCTGGGATATCTGAGAAGTATAGGACATACTCTATTAGAGACGGGAAAGATGGCAAATACCTGC
CGTTTTATTCTGTGTGACTCACTGGGGCTGAGTGAGAAAGAAGGCGGCCCTGTGCAGGGATGACATATTCTATATCT
TGAACGGTAACATTCGTGATAGATACCAGTTTAATCCCATGGAATCAATCAAATTAATCATCATGACTACATTG
ATTCCCCATCGCTGAAGGACAGAATTCATTGTGTGGCATTGTATTTGATGCCAGCTCTATTCAATACTTCTCCT
CTCAGATGATAGTAAAGATCAAAAGAATTCGAAGGGAGTTGGTAAACGCTGGTGTGGTACATGTGGCTTTGCTCA
CTCATGTGGATAGCATGGATTTGATTACAAAAGGTGACCTTATAGAAAATAGAGAGATGTGAGCCTGTGAGGTCCA
AGCTAGAGGAAGTCCAAAGAAAACCTGGATTTGCTCTTTCTGACATCTCGGTGGTTAGCAATTATTCCTCTGAGT
GGGAGCTGGACCCTGTAAAGGATGTTCTAATTCCTTCTGCTCTGAGACGAATGCTATGGGCTGCAGATGACTTCT
TAGAGGATTTGCCTTTTGAGCAAATAGGGAATCTAAGGGAGGAAATTATCAACTGTGCACAAGGAAAAAAATAGAG
TATGTGAAAGGTTACGTAAATTTCTCACATCACAGAAGATTAAAATTCAGAAAGGAGAAAACACAGACCAAAG
AGAAGTATCTAAGACCAAAGGGATGTGTTTTATTAATGTCTAGGATGAAGAAATGCATAGAACATTGTAGTACTT
GTAAATAACTAGAAATAACATGATTTAGTCATAATTGTGAAAAATAGTAATAATTTTCTTGGATTTATGTTCTG
TATCTGTGAAAAAATAAATTTCTTATAAACTCGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 260

MAVTTRLTRLHEKILQNHFGGKRLSLLYKGSVHGFRNGVLLDRCCNQPTLTVIYSEDHIIGAYAEESYQEGKYA
SIILFALQDTKISEWKLGLCTPETLFCCDVTKYNSPTNFQIDGRNRKVIMDLKTMENLGLAQNCTISIQDYEVFR
CEDSLDERKIKGVIELRKSLLSALRTYEPYGSLVQQIRILLGPIGAGKSSFFNSVRSVFQGHVTHQALVGTNTT
GISEKYRTYSIRDGKDGKYL PFI LCD SLGLSEKEGGLCRDDIFYILNGNIRDYQFNPMESIKLNHHDYIDSPSL
KDRIHCVAFVFDASSIQYFSSQMIVKIKRIRRELVNAGVVHVAL LTHVDSMDLITKGD LIEIERCEPVRSKLEEV
QRKLG FALSDISVVSNY SSEWELDPVKDVLILSALRRMLWAADDFLEDLPFEQIGNLREEIINCAQGKK

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FIGURE 261

GAGTGCGCACGCATCCTGCCCGCGGCGCGCGCAGGTGCGGTGCGTCTGTCTCGGGGGCGCGCTCGGGTACCTGTAC
CCCACGTAGTCGCCGGTTACCGATCGGACTAAGTTCCAGTGGTGATTTACAAGTCAAGTTAAATGTCCCCAGAA
GTGGCCTTGAACCGAATATCTCCAATGCTCTCCCTTTTCATATCTAGCGTGGTCCGGAATGGAAAAGTGGGACTG
GATGCTACAACTGTTTGAGGATAACTGACTTAAATCTGGCTGCACATCATTGACTCCTGGGCCCAACTGTGAC
CGATTTAAACTGCACATACCATATGCTGGAGAGACATTAAAGTGGGATATCATTTTCAATGCCCAATACCCAGAA
CTGCCTCCCGATTTTATCTTTGGAGAAGATGCTGAATTCCTGCCAGACCCCTCAGCTTTGCAGAATCTTGCCCTCC
TGGAATCCTTCAAATCCTGAATGTCTCTTACTTGTGGTGAAAGGAACTTGTGCAACAATATCACCAATTCCAATGT
AGCCGCCCTCCGGGAGAGCTCCCGCCTCATGTTTGAATACCAGACATTACTGGAGGAGCCACAGTATGGAGAGAAC
ATGGAAATTTATGCTGGGAAAAAAACAACCTGGACTGGTGAATTTTCAGCTCGTTTCTTTTGAAGCTGCCCCGTA
GATTTTCAGCAATATCCCCACATACCTTCTCAAGGATGTAAATGAAGACCCCTGGAGAAGATGTGGCCCTCCTCTCT
GTTAGTTTTGAGGACACTGAAGCCACCCAGGTGTACCCAAGCTGTACTTGTACCTCGAATTGAGCATGCACTT
GGAGGCTCCTCAGCTCTTCATATCCCAGCTTTTCCAGGAGGAGGATGTCTCATTGATTACGTTCTCAAGTATGC
CACCTGCTCACCAACAAGGTGCAGTACGTGATTCAAGGGTATCACAAAAGAAGAGAGTATATTGCTGCTTTTCTC
AGTCACTTTGGCACAGGTGTCGTGGAATATGATGCAGAAGGCTTTACAAAACCTCACTCTGCTGCTGATGTGGAAA
GATTTTTGTTTTCTTGTACACATTGACCTGCCTCTGTTTTTCCCTCGAGACCAGCCAACCTCTCACATTTAGTCC
GTTTATCACTTTACCAACAGTGGACAGCTTTACTCCCAGGCCCAAAAAAATTATCCGTACAGCCCCAGATGGGAT
GGAAATGAAATGGCCAAAAGAGCAAAGGGATGCCAGGGGAGCAGAGATGCCTGCAGCCCGTGGGAGCAAGTCCTG
GCCTTTGCAGTTGCAAAAACCTGGCTGCAAGCTGCTCCAGCCCCAGAGGAACTGGCCAAGCTCCAGAGGGCCTCCT
TGGAGGGCCTCAGAGGGAGAGAGAACTGCTCAGTAAATTTTGATCACTTTGGGCTTATTTCAAACCTTTGTCCCT
CAGTTCCAGGAGGCAGCATTTGCCAATGGAAAGCTCTAGGAAACACCAGTCTTGAGAGGTGGCCAGCCAGACTGC
CTGTCCACATGCGTGTGAGCACATACAGCCGCTTCTGGAAGCCGCTGGAATGTCTTACGGCAGCGTTTTGCT
CACACAGCAGCTTTTGCACGCCCCAGGCAGCCCCGACTGCTGAAATCCAACCTTGAGCTGGCTGGTGGTCCCTGGA
TCCTAGAGCCCTTCACTTCGGGTTACTCCCTCTTTCTTGCTCTATTTCTTAGTTGGAAGAAATAAACTCACAAA
TTATGGTGCAGTAATTTTCCGGGGAAAGTAAAGCCTCAGGAATGCCACGCCTTTCTTCAAAGCCTTTGTCTCT
GAGACCTCTTAAGTTCTAAGATTAAATGCCCTCGCTGTTTCTCCTCTGAAAAAAAAAAAAAAAAA

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FIGURE 262

MSPEVALNRISPMLSPFISSVVRNGKVGLDATNCLRITDLKSGCTSLTPGPNCDFKLHIPYAGETLKWDIIFNA
QYPELPPDFIFGEDAEFLPDPSALQNLASWNPSNPECLLLVVKELVQQYHQFQCSRLRESSRLMFEYQTLLEEPQ
YGENMEIYAGKKNNWTGEFSARFLLKLPVDFSNIPTYLLKDVNEDPGEDVALLSVSFEDTEATQVYPKLYLSPRI
EHALGGSSALHIPAFPGGGCLIDYVPQVCHLLTNKVQYVIQGYHKRREYIAAFLSHFGTGVVEYDAEGFTKLTL
LMWKDFCFLVHIDLPLFFPRDQPTLTFQSVYHFTNSGQLYSQAQKNYPYSPRWDGNEMAKRAKGCQGSRDACSPW
EQVLAFVAKTGCKLLQPQRNWPSSRGPPWRASEGERTAQ

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FIGURE 263

GAGGAGGAACAGAAAAGAAAAGAAAAGTGGGAAACAAATAATCTAAGAATGAGGAGAAAGCAAGAAGAG
TGACCCCTTGTGGGCACTCCATTGGTTTTATGGCGCCTCTACTTTCTGGAGTTTGTGTAACAAAAATATTAT
GGTCTTTGTGCACATTTACATCAAGCTCAGCCTGGGCGGCACAGCCAGATGCGAGATGCGTCTCTGCTGATCTGA
GTCTGCCTGCAGCATGGACCTGGGTCTTCCCTGAAGCATCTCCAGGGCTGGAGGGGACGACTGCCATGCACCGAGG
GCTCATCCATCCACAGAGCAGGGCAGTGGGAGGAGACGCCATGACCCCATCCTCACGGTCTTGATCTGTCTCGG
GCTGAGTCTGGGCCCCCGGACCCACGTGCAGGCAGGGCACCTCCCCAAGCCCACCTCTGGGCTGAACCAGGCTC
TGTGATCACCCAGGGGAGTCTGTGACCTCAGGTGTCAGGGGGGCCAGGAGACCCAGGAGTACCGTCTATATAG
AGAAAAGAAAACAGCACCTGGATTACACGGATCCACAGGAGCTTGTGAAGAAGGGCCAGTTCCCCATCCCATC
CATCACCTGGGAACATGCAGGGCGGTATCGCTGTTACTATGGTAGCGACACTGCAGGCCGCTCAGAGAGCAGTGA
CCCCCTGGAGCTGGTGGTGACAGGAGCCTACATCAAACCCACCTCTCAGCCCAGCCCAGCCCCGTGGTGAACCTC
AGGAGGGAATGTAACCTCCAGTGTGACTCACAGGTGGCATTGTGATGGCTTCATTCTGTGTAAGGAAGGAGAAGA
TGAACACCCACAATGCCTGAACTCCCAGCCCCATGCCGTGGGTCTGTCGCGCCATCTTCTCCGTGGGCCCCGT
GAGCCCGAGTCGAGGTGGTGGTACAGGTGCTATGCTTATGACTCGAACTCTCCCTATGAGTGGTCTCTACCCAG
TGATCTCCTGGAGCTCCTGGTCTTAGGTGTTTCTAAGAAGCCATCACTCTCAGTGCAGCCAGGTCTATCGTGGC
CCCTGAGGAGACCCTGACTCTGCAGTGTGGCTCTGATGCTGGCTACAACAGATTTGTTCTGTATAAGGACGGGGA
ACGTGACTTCCTTCAGCTCGCTGGCGCACAGCCCCAGGCTGGGCTCTCCCAGGCCAACTTCACCTGGGCCCTGT
GAGCCGCTCCTACGGGGGCCAGTACAGATGCTACGGTGCACACAACCTCTCCTCCGAGTGGTCGGCCCCCAGCGA
CCCCCTGGACATCCTGATCGCAGGACAGTTCTATGACAGAGTCTCCCTCTCGGTGCAGCCGGGCCCCACGGTGGC
CTCAGGAGAGAACGTGACCCTGCTGTGTGTCAGTACAGGGATGGATGCAAACTTTCTTCTGACCAAGGAGGGGGC
AGCTGATGACCCATGGCGTCTAAGATCAACGTACCAATCTCAAAAATACCAGGCTGAATTCCCCATGGGTCTGT
GACCTCAGCCCATGCGGGGACCTACAGGTGCTACGGCTCACAGAGCTCCAAACCTACCTGCTGACTCACCCAG
TGACCCCTGGAGCTCGTGGTCTCAGGACCGTCTGGGGGCCCAGCTCCCCGACAACAGGCCCCACCTCCACATC
TGGCCCTGAGGACCAGCCCCCTACCCCCACCGGTGCGATCCCCAGAGTGGTCTGGGAAGGCACCTGGGGGTGT
GATCGGCATCTTGGTGGCCGTCATCCTACTGCTCCCTCCTCCTCCTCCTCCTCCTCATCTCCGACATCGACG
TCAGGGCAAACACTGGACATCGACCCAGAGAAAGGCTGATTTCCAACATCCTGCAGGGGCTGTGGGGCCAGAGCC
CACAGACAGAGGCTGAGTGGAGGTCCAGCCCAGCTGCCGATGCCAGGAAGAAAACCTCTATGCTGCCGTGAA
GCACACACAGCCTGAGGATGGGGTGGAGATGGACACTCGGAGCCACACGATGAAGACCCCCAGGCAGTGACGTA
TGCCGAGGTGAAACACTCCAGACCTAGGAGAGAAATGGCCTCTCCTCCTTCCCCACTGTCTGGGGAATTCCTGGA
CACAAAGGACAGACAGGCGGAAGAGGACAGGCAGATGGACACTGAGGCTGCTGCATCTGAAGCCCCCAGGATGT
GACCTACGCCCAGCTGCACAGCTTGACCTTAGACGGAAGGCAACTGAGCCTCCTCCATCCCAGGAAGGGCCCTC
TCCAGCTGTGCCAGCATCTACGCCACTCTGGCCATCCACTAGCCCAGGGGGGGACGCAGACCCACACTCCATG
GAGTCTGGAATGCATGGGAGCTGCCCCCCCAGTGGACACCATTTGACCCCACCCAGCCTGGATCTACCCAGGAG
ACTCTGGGAACTTTTAGGGGTCACCTCAATTCTGCAGTATAAATAACTAATGTCTCTACAATTTGAAATAAAGCA
ACAGACTTCTCAATAATCAATGAAGTAGCTGAGAAAACCTAAGTCAGAAAGTGCAATTAAGTGAATCACAATGTAA
ATATTACACATCAAGCGATGAACTGGAAACTACAAGCCACGAATGAATGAATTAGGAAAGAAAAAAGTAGGA
AATGAATGATCTTGGCTTTCCTATAAGAAATTTAGGGCAGGGCACGGTGGCTCACGCCTGTAATTCAGCACTTT
GGGAGGCCGAGGCGGGCAGATCACGAGTTCAGGAGATCGAGACCATCTTGGCCAACATGGTGAAACCTGTCTCT
CCTAAAAATACAAAATTAGCTGGATGTGGTGGCAGTGCCGTGTAATCCCAGCTATTTGGGAGGCTGAGGCAGGAG
AATCGCTTGAACCAGGGAGTCAGAGGTTTCAGTGAGCCAAGATCGCACCCTGCTCTCCAGCCTGGCGACAGAGG
GAGACTCCATCTCAAATTAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAG

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FIGURE 264

MTPILTVLICLGLSLGPRTHVQAGHLPKPTLWAEPGSVITQGSPVTLRCQGGQETQEYRLYREKKTAPWITRIPQ
ELVKKGQFPIPSITWEHAGRYRCYYGSDTAGRSESSDPLELVVTGAYIKPTLSAQSPVNVNSGGNVTLQCDSQVA
FDGFILCKEGEDEHPQCLNSQPHARGSSRAIFSVGPVSPSRRWWYRCYAYDSNSPYEWSLPSDLLELLVLGVSKK
PSLSVQPGPIVAPEETLTLQCGSDAGYNRFVLYKDGGERDFLQLAGAQPQAGLSQANFTLGPVRSYGGQYRCYGA
HNLSSSEWSAPSDPLDILIAGQFYDRVSLSVQPGPTVASGENVTLLCQSQGWMQTFLLTKEGAADDPWRLRSTYQS
QKYQAEFPMGPVTSAHAGTYRCYGSQSSKPYLLTHPSDPLELVVSGPSGGPSSPTTGPTSTSGPEDQPLTPTGSD
PQSGLGRHLGVVIGILVAVILLLLLLLLLLFLILRHRROGKHWSTQRKADFQHPAGAVGPEPTDRGLQWRSSPAA
DAQEENLYAAVKHTQPEDGVEMDTRSPHDEDPQAVTYAEVKHSRPRREMASPPSPLSGEFLDTKDRQAEEDRQMD
TEAAASEAPQDVTYAQLHSLTLRRKATEPPPSQEGPSPAVPSIYATLAIH

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FIGURE 265

CAACATGGCGGCCGCGGTGGCGGGCGGCACCTGGGGCCTTGGGATCCCTGCATGCTGGCGGGCGCCCGCCTGGTGGC
CGCTTGCAAGTGGTGGCTCTGCCCCGGGGTTGAGGCTGCCCGGCTCGTTGGCAGGCCGGCGAGCGGGCCCCGGCGAT
CTGGGCCCAGGGCTGGGTACCTGCGGCCGGGGGTCCGCCCCGAAAAGGGGCTACAGCTCTGAGATGAAGACGGA
GGACGAGCTGCGGGTGGCGCACCTGGAGGAGGAGAACCGAGGAATTGTGGTGCTTGGGAATAAACAGAGCTTATGG
CAAAAATTCAGTCAAGTAAAAATCTTATAAAAATGCTATCAAAAGCTGTGGATGCTTTGAAATCTGATAAGAAAGT
ACGGACCATAATAATCAGGAGTGAAGTCCCAGGGATATTCTGTGCTGGTGCTGACCTTAAGGAAAGAGCCAAAAT
GAGTTCCAGTGAAGTTGGTCCCTTTGTCTCCAAAATAAGAGCAGTGATTAAACGATATTGCTAATCTTCCAGTGCC
AACAAATTGCAGCAATAGATGGACTCGCTTTAGGTGGTGGTCTTGAACCTGGCTTTAGCCTGTGATATACGAGTAGC
AGCTTCCTCTGCAAAAATGGGCCTGGTTGAAACAAAATTGGCGATTATTCTGGTGGAGGGGGGACACAGCGATT
GCCACGCGCCATTGGAATGTCCCTGGCCAAGGAGCTCATATTCTCTGCGCGAGTCCCTCGATGGCAAAGAAGCCAA
AGCAGTGGGCTTAATCAGCCACGTTCTGGAACAGAACAGGAGGGAGACGCGGCCTACAGGAAGGCCTTGGACCT
GGCGAGAGAGTTTTTACCTCAGGGACCTGTTGCAATGAGAGTGGCAAATTAGCAATTAATCAAGGGATGGAGGT
CGATTTAGTAACAGGGTTAGCCATAGAAGAAGCTTGTTATGCTCAGACCATTCCAACAAAAGACAGACTTGAAGG
TCTTCTTGCTTTTAAAGAGAAAAGGCCCCCTCGCTATAAAGGAGAATTAAAAGGAACAGAAATCTTAAGATGCCA
ATGTAATAAATGTACTTCCTGGAAGTGCTTTTCGGATCCACTATATGCCTCAGCACATGGAACCTTAATGACCAA
AGTGAAGAGCAGATTATTCATACGGTGTAAATAAGCGTCTGGAATGGACCCATCCGTGTACTTCATTCAAATGTGT
AAATGTCATATTCATTCAAGTTTATAAAGCTAGTAGTGATAGTCAGAAACAGAATCAAAGTTAGATATACATTT
TTAAATATTTACTGCATATGAGGCTTTCTGTTAATTTTTAATGTGAATAATTTATATATTGCACATTCTAGGAA
TAATATTGATTGTATGTCTACTGTGCTGCATTAAGAAAATAAAATTTCTATATACCAAAAATGTGAAGTTATACC
AAATAAAGTTTCTAAGTGATTAATGCATACGAACAGCTACATATACATATATCTAAACCTGAAAAATGAATTGAT
ATTCTGAGTGAAAACCTACCTAATATAAATAAAATTAGTGAAGAAAA

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FIGURE 266

MAAAVAAAPGALGSLHAGGARLVAACSAWLCPGLRLPGSLAGRRAGPAIWAQGWVPAAGGPAPKRGYSSEMKTED
ELRVRHLEENRGIVVLGINRAYGKNSLSKNLIKMLSKAVDALKSDKKVRTIIIRSEVPGIFCAGADLKERAKMS
SSEVGPFVSKIRAVINDIANLPVPTIAAIDGLALGGGLELALACDIRVAASSAKMGLVETKLAIIPGGGGTQRLP
RAIGMSLAKELIFSARVLDGKEAKAVGLISHVLEQNQEGDAAYRKALDLAREFLPQGPVAMRVAKLAINQGMEVD
LVTGLAIEEACYAQTIPTKDRLEGLLAFKEKRPPRYKGE

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FIGURE 267

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCCTTTGAACGCAGTCGCCCTACAGCCGCTGATTCCCCCGCA
TCGCCTCCCGTGGAAGCCCAGGCCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACC**ATGT**CCACCAACGAGAAT
GCTAATACACCAGCTGCCCCGTCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCGTCGCAGA
ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATT
CCTGATGATGCTACTTCTCCGCTGCAGGAAAACCGCAACAACAGGGCACTGTAAATTGGTCTGTTGATGACATT
GTCAAAGGCATAAATAGCAGCAATGTGGAATCAGCTCCAAGCTACTCAAGCTGCCAGGAACTACTTTCCAGA
GAAAAACAGCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGTCTTCTTGGGCAGAACT
GATTGTAGTCCCATTCAGTTTGAATCTGCTTGGGCACCTACTAACATTGCTTCTGGGACATCAGAACAAACCAAG
GCTGTGGTAGATGGAGGTGCCATCCCAGCATTCAATTTCTCTGTTGGCATCTCCCATGCTCACATCAGTGAACAA
GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCCGAGACTTGGTTATTAAGTACGGTGCAGTT
GACCCACTGTTGGCTCTCCTTGCAATTCTGATATGTCATCTTTAGCATGTGGCTACTTACGTAATCTTACCTGG
ACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCCGATAGATGCTGTTGAGCAGATTCTTCCTACCTTA
GTTCCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCTACCTTACTGATGGT
CCAAATGAACGAATTGGCATGGTGGTGAAAACAGGAGTTGTGCCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAA
TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG
ATTGATGCAGGAGCACTCGCCGTCTTTCCCAGCCTGCTCACCAACCCCCAACTAACATTGAGAAGGAAGCTACG
TGGACAATGTCAAACATCACAGCCGGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATT
CTTGTCAGTGTTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCAACTATACCAGT
GGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAATAGAACCGTTGATGAACCTCTTAAGTGA
AAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAACTAGGTGAA
ACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCTTAGACAAAATTGAAGCTCTACAAAACCATGAAAAT
GAGTCTGTGTATAAGGCTTCGTAAAGCTTAATTGAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTT
GTACCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAACTTT**TAGATC**
ATGTAGCTGAGACATAAATTTGTTGTGTACTACGTTTGGTATTTTGTCTTATTGTTTCTCTACTAAGAACTCTTT
CTTAAATGTGGTTTGTACTGTAGCACTTTTTTACACTGAACTATACTTGAACAGTTCCAAGTGTACATACATAC
TGTATGAAGCTTGTCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCTATCTTGCAGCATCCTGTAAATAA
ACATTCAAGTCCACCCCTTAAAAAAA

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FIGURE 268

MSTNENANTPAARLHRFKNKGKDSTEMRRRRRIEVNVELRKAKKDDQMLKRRNVSSFPDDATSPLQENRNNQGTVN
WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIIRAGLIPKFVSFLGRDTCSP IQFESAWALTNIASG
TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLLALLAVPDMSSLACGY
LRNLTWTLNLCRNKNPAPPIDAVEQILPTLVRLHHDDPEVLADTCWAI SYLTDGPNERIGMVVKTGVPQLVK
LLGASELP IVTPALRAIGNIVTGTDEQTQVVIDAGALAVFP SLLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN
HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGI IEPLMNLLTAKDTKI ILVILDAISNIFQA
AEKLGETEKL SIMIEECGGLDKIEALQNHENESVYKASLSLIEKYFSVEEEEDQNVVPETTSEGYTFQVQDGAPG
TFNF

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FIGURE 269

AAAACAGCCGGGGCTCCAGCGGGAGAACGATAATGCAAAGTGCTATGTTCTTGGCTGTTCAACACGACTGCAGAC
CCATGGACAAGAGCGCAGGCAGTGGCCACAAGAGCGAGGAGAAGCGAGAAAAGATGAAACGGACCCTTTTAAAAG
ATTGGAAGACCCGTTTGAGCTACTTCTTACAAAATTCCTCTACTCTCTGGGAAGCCCAAAACCGGCAAAAAAAGCA
AACAGCAAGCTTTCATCAAGCCTTCTCCTGAGGAAGCACAGCTGTGGTCAGAAGCATTGACGAGCTGCTAGCCA
GCAAAATATGGTCTTGCTGCATTTCAGGGCTTTTTTAAAGTCGGAATTCTGTGAAGAAAATATTGAATTCTGGCTGG
CCTGTGAAGACTTCAAAAAAACCAATCACCCCAAAGCTGTCTCAAAAGCAAGGAAAATATATACTGACTTCA
TAGAAAAGGAAGCTCCAAAAGAGATAAACATAGATTTTCAAACCAAACTCTGATTGCCCAGAATATACAAGAAG
CTACAAGTGGCTGCTTTACAAC TGCCAGAAAAGGGTATACAGCTTGATGGAGAACAAC TCTTATCCTCGTTTCT
TGGAGTCAGAATTCTACCAGGACTTGTGTAAAAAGCCACAAATCACACAGAGCCTCATGCTACATGAAATGTAA
AAGGGAGCCCAGAAATGGAGGACATTTCAATCTTTTTCCTGAGGGGAAGGACTGTGACCTGCCATAAAGACTGAC
CTTGAATTCAGCCTGGGTGTTTCAGGAAACATCACTCAGAACTATTGATTCAAAGTTGGGTAGTGAATCAGGAAGC
CAGTAACTGACTAGGAGAAGCTGGTATCAGAACAGCTTCCCTCACTGTGTACAGAACGCAAGAAGGGAATAGGTG
GTCTGAACGTGGTGTCTCACTCTGAAAAGCAGGAATGTAAGATGATGAAAGAGACAATGTAATACTGTTGGTCCA
AAAGCATTTAAATCAATAGATCTGGGATTATGTGGCCTTAGGTAGCTGGTTGTACATCTTCCCTAAATCGATC
CATGTTACCACATAGTAGTTTTAGTTTAGGATTCAGTAACAGTGAAGTGTTTACTATGTGCAAGGGTATTGAAGT
TCTTATGACCACAGATCATCAGTACTGTTGTCTCATGTAATGCTAAACTGAAATGGTCCGTGTTTGCAATTGTTA
AAAATGATGTGTGAAATAGAATGAGTGCTATGGTGTTGAAAAGTGCAGTGTCGGTTATGAGTGCCAAAAATCTGT
CTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTTAATAAATTTATTTTGATAAATAATATTG

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FIGURE 270

MQSAMFLAVQHDCRPMDKSAGSGHKSEEKREKMKRTLLKDWKTRLSYFLQNSSTPGKPKTGKKSKQQAFIKPSPE
EAQLWSEAFDELLASKYGLAAFRFLKSEFCEENIEFWLACEDFKKTKSPQKLSSKARKIYTDFIEKEAPKEINI
DFQTKTLIAQNIQEATSGCFTTAQKRVYSLMENNSYPRFLESEFYQDLCKKPQITTEPHAT

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FIGURE 271

ACCCAGGGTCCGGCCTGCGCCTTCCCGCCAGGCCTGGACACTGGTTCAACACCTGTGACTTCATGTGTGCGCGCC
GGCCACACCTGCAGTCACACCTGTAGCCCCCTCTGCCAAGAGATCCATACCGAGGCAGCGTCGGTGGCTACAAGC
CCTCAGTCCACACCTGTGGACACCTGTGACACCTGGCCACACGACCTGTGGCCGCGGCCTGGCGTCTGCTGCGAC
AGGAGCCCTTACCTCCCCCTGTTATAACACCTGACAGCCACCTAACTGCCCCCTGCAGAAGGAGCAATGGCCTTGGC
TCCTGAGAGGTAAGAGCCCCGGGCCACCCCTCTCCAGATGCCAGTCCCCGAGCGCCCTGCAGCCGGCCCTGACTCTC
CGCGGCCCGGCCACCCGACGGGCAGCCCCACGCGTGTGTTCCGGAGAGTGGCTCCTTGGAGAGATCAGCAGCGGCT
GCTATGAGGGGCTGCAGTGGCTGGACGAGGCCCGCACCTGTTTCCGCGTGCCCTGGAAGCACTTCGCGCGCAAGG
ACCTGAGCGAGGCCGACGCGCGCATCTTCAAGGCC TGGGCTGTGGCCCCGCGGCAGGTGGCCGCCTAGCAGCAGGG
GAGGTGGCCCCGCCCCCGAGGCTGAGACTGCGGAGCGCGCCGGCTGGAAAACCAACTTCCGCTGCGCACTGCGCA
GCACGCGTCGCTTCGTGATGCTGCGAGATAACTCGGGGGACCCGGCCGACCCGCACAAGGTGTACGCGCTCAGCC
GGGAGCTGTGCTGGCGAGAAGGCCCAGGCACGGACCAGACTGAGGCAGAGGCCCGCGCAGCTGTCCCACCACCAC
AGGGTGGGCCCCCAGGGCCATTCCTGGCACACACATGCTGGACTCCAAGCCCCAGGCCCCCTCCCTGCCCCAG
CTGGTGACGAGGGGGACCTCCTGCTCCAGGCAGTGCAACAGAGCTGCCTGGCAGACCATCTGCTGACAGCGTCAT
GGGGGGCAGATCCAGTCCCAACCAAGGCTCCTGGAGAGGGACAAGAAGGGCTTCCCCTGACTGGGGCCTGTGCTG
GAGGCCCAGGGCTCCCTGCTGGGGAGCTGTACGGGTGGGCAGTAGAGACGACCCCCAGCCCCGGGCCCCAGCCG
CGGCACTAACGACAGGCGAGGCCGCGGCCCCAGAGTCCCCGACACAGGCAGAGCCGTACCTGTACCCCTCCCCAA
GCGCCTGCACCGCGGTGCAAGAGCCCAGCCCAGGGGCGCTGGACGTGACCATCATGTACAAGGGCCGCACGGTGC
TGCAGAAGGTGGTGGGACACCCGAGCTGCACGTTCTATACGGCCCCCAGACCCAGCTGTCCGGGCCACAGACC
CCCAGCAGGTAGCATTCCCCAGCCCTGCCGAGCTCCCGACCAGAAGCAGCTGCGCTACACGGAGGAAGTGTGCTG
GGCACGTGGCCCCCTGGGTGTCACCTGGAGCTTCGGGGGCCACAGCTGTGGGCCCGGCGCATGGGCAAGTGAAGG
TGTAAGTGGGAGGTGGGCGGCCCCCCCAGGCTCCGCCAGCCCCCTCCACCCAGCCTGCCTGCTGCCTCGGAAGTGTG
ACACCCCCATCTTCGACTTCAGAGTCTTCTTCGAGAGCTGGTGAATTCCGGGCACGGCAGCGCCGTGGCTCCC
CACGCTATACCATCTACCTGGGCTTCGGGCAGGACCTGTGAGCTGGGAGGCCCAAGGAGAAGAGCCTGGTCCTGG
TGAAGCTGGAACCCTGGCTGTGCCGAGTGCACCTAGAGGGCACGCAGCGTGAGGGTGTGTCTTCCCTGGATAGCA
GCAGCCTCAGCCTCTGCCTGTCCAGCGCCAACAGCCTCTATGACGACATCGAGTGCTTCCTTATGGAGCTGGAGC
AGCCCGCCTAGAACCAGTCTAATGAGAACTCCAGAAAGCTGGAGCAGCCACCTAGAGCTGGCC

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FIGURE 272

MPVPERPAAGPDSRPGRRAAPRVLFGEWLLGEISSGCYEGQLQWLDEARTCFRVPWKHFARKDLSEADARIFKA
WAVARGRWPPSSRGGGPPPEAETAERAGWKTNFRCLRSTRRFVMLRDNSGDPADPHKVYALSRELCWREGPGTD
QTEAEAPAAVPPPQGGPPGPFLAHTHAGLQAPGPLPAPAGDEGDLQLQAVQQSCLADHLLTASWGADPVPTKAPG
EGQEGPLPTGACAGGPGLPAGELYGWAVETTPSPGPQPAALTTEGAAAPESPHQAEPYLSPPSPSACTAVQEPPSPG
ALDVTIMYKGRTVLQKVVGHPSCFTLYGPPDPAVRATDPQQVAFPPSPAELPDQQLRYTEELLRHVAPGLHLELR
GPQLWARRMGKCKVYWEVGGPPGSASPSTPACLLPRNCDTPIFDFRVFFRELVEFRARQRRGSPRYTIYLGFGQD
LSAGRPKEKSLVLVKLEPWLCRVHLEGTQREGVSSLDSSSLSLCLSSANSYDDIECFLELEQPA

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FIGURE 273

AGTGTGGTTTTAGTTTTTCTAAGAAGTGGCGTGGTTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT
CCTGGGGCGTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGGCCGGGCGTTTGAGGGCTACTGCCACG
CAGCGTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCTCTTTATCTCAGG
CTCTCCAGGAGGCCGGGGGGCCACTCCGCCTATCGCTCCCTCGGCTACGCTGCCACTCCAATGCCCCGCAGGT
CGCGAGCTGCTGTTCTTTGAAGGCGCCGGAGAACCAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGTCCCTCTGCGCGGCAGCCCGTCGCG
GGCCCTCAAGGGGAAGCCAGGCCAGGATGGCCCCGGGTGCGCGGTGGCCGGGCTCCTGTTGCTGGCGGCCGCC
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG
AGCCTGTGCGCGGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCT
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTTCCCTTCATGGCTTTTCAAATGCTACCCAA
ATAACCAGCTCCAAATTCTGTCTATCTGTCCAGCAGTCTTACAGCAATTGAACTTTCACCCATGTGAGGATCGG
CCCAAGCACAAAACAAGACCAAGTCATTGAGAAGTTTGGGGATATGGATTCTGTGCTGAGGATTATTAATCTG
GCATCTCTCCTCGGATTGATTTTGAATCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTG
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACCTTATTCCAGAGGCATTGGATTGATCCCAA
GTGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAGAATGCTA
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCTCAAGAAAA
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAATCCTGCTGTACAGAAGCTAAT
GGACATATCCATTTTGATAATGTGAGTGTGATCTCTACAGGATGGAAAAAAGAGCCAAAGTTTATGTACCTGT
TTGAAGGGGCCCCAACTGTGAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTT
ATCGATGGCCTGGCGATTGGGGCTTCTGACCTTGTCTCTCCTTCAGGGACTCAGTACTTCCATAGCAATCCTA
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCTACTCAATGCAGGATGAGCACTCGACAAGCCTTG
CTATTCAACTTCTTTCTGATGTTTCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTGCT
CCAAATATTATATTGCACTTGCTGGAGGCATGTTTCTCTATATTTCTCTGGCAGATATGTTTCCAGAGATGAAT
GATATGCTGAGAGAAAAAGTAACTGGAAGAAAAACCGATTTACCTTCTTCATGATTCAGAATGCTGGAATGTTA
ACTGGATTACAGCCATTCTACTCATTACCTTGATGTCAGGAGAAATCGAATTGGAGTAAATAGAAAAATGGAAGAT
GGTGTGTTAATAAAGGCATTTAATAGATAAAAACATCTCCAAAAAGGATTTGAAGCTGATCCTATTTAGTTAA
AAAGATAATTTTGCTTTCAACTGTAGGTCCAGAAAACATAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT
GTTGTTAAAAATGCTTCAAAAGGTTTTAGTGTGAGTCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT
TATTTTTCAGTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT
CAGACTCAGGGGAAAAATACAAGTTATATCCTGAAAGCCTTTAAACTCTATGGTAGGATCAAAGATTCAAATGGT
TTCAGAGAGGTTTTATTTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAGGTAAAA
TGATATGCAACACTAATATAAATTTATCCAAGTCTTAAAGAGCCAAAGAAAAAAGATTTCTCACAGCTTTTTG
TTCTGTTTTGTATTTCAATTAGGAACTTGCAGTATTATTTGAAAACCATTTCTAAAAATAATAGGAGTTAGGAAAT
AAATAAAGTTTTGCTAGCCCTGCTAAGTTAGGCTTAGAGGCTTATCGCTAAGXTAAACTTCACCAGATTCCAC
GAAAAGCTGGATAGCTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC
TGGTAACACCTCGGTTTCAGTGCACCATGTGTTTGCTTTGTGAAGGTGAAGAATATGTTGGTTTTAGAGAAAGAAA
TTGGATGTAATTTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAAATAAATGCAA
AACACAGCTGGACTGCTGTACATCAAGGACAGATTAAGTGGAAAACATATGTTCCCTTATGTGTGATTGAGAGCC
ATTCAGAAAAGACTTCTTTGTGTTGAGCCTATACTTTTCCATATGGTATACCTTGAAAAAATTAGCACACCAT
GGTTATTTTTTCTACCTTTTATAAAAGACAGAGCCTGTTTACTCATTTAGAAGATAGAGAAAAATGGTCTAAAT
GAACATCCTAGATTACACTCCCAAGTCACTTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGCAGATTTGGTGAATAT
TTAATATATATTTTAGTATGTATTTCACTTTATGACTGACAATTAATAAATATTGTTTGGCCAAATAGTAAACAC
CCTTTTGAACCATGAAAAA

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FIGURE 274

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLSEQMGAASRVGVPEPGQLHFNQCL
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVSLQDGKKEPSSCTCLKGPKLSEI
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDVILLNAGMSTRQALLFNFLSACS
CYVGLAFGILVGNNFAPNIIIFALAGGMFLYISLADMFPENMDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI
TLYAGEIELE

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FIGURE 275

TGATGTGATATGGCTGCAAGTGCCTTTGACCCTTTTGTCTCCCTTCCATAAACTGAAATACCTAAGCTGCTCCAA
CCTCCTTTTTGTCTTTTGTTCATAAAATCCTTTCCCATTCACATCAACTCCTGTCTCTCTTTGTACTGTCACTC
TCATCTGTTGCTTTCCATTACACTGCCTTTAGCCACTCATCATTTTGTGCCTACACCACAGAAACCTCTGAATG
TAATGGATGTTCTACCAGAGGACAAGTCGTACAATGGTGGAGGAATAGGTTCTTCAAATAGGATCATGGACTTC
TTGGAGGAGCCAATCCCTGGTGTAGGGACCTATGATGATTTCAATACAATTGATTGGGTGAGAGAGAAGTCTCGA
GACCGGGATAGGCACCGAGAGATTACCAATAAAAGCAAAGAGTCAACATGGGCCTTAATTCACAGTGTGAGTGAT
GCTTTTTCCGGCTGGTTGTTGATGCTCCTTATTGGGCTTTTATCAGGTTCTGTTAGCTGGTTTGATAGACATCTCT
GCTCATTGGATGACAGACTTAAAGAAGGTATATGCACAGGGGGATTCTGGTTTAACCATGAACATTGTTGCTGG
AACTCTGAGCATGTCACCTTTGAAGAGAGAGACAAATGTCCAGAGTGAATAGTTGGTCCCAGCTTATCATCAGC
ACAGATGAGGGAGCCTTTGCCTACATAGTCAATTATTTATGTACGTCCTCTGGGCTCTCCTATTTGCCTTCCTT
GCCGTATCTCTTGTCAAGGTGTTTGCCTTATGCCTGTGGCTCTGGAATCCCTGAGATAAAAACCTATCTTGAGT
GGTTTCATTATTAGGGGCTATTTGGGTAAGTGGACTCTGGTTATCAAAACCATCACCTTGGTGTGCTGGCAGTGTGG
TCTGGCTTGAGCCTGGGCAAAGAGGGCCCTCTAGTGCACGTGGCTTGCTGCTGTGGGAACATCCTGTGCCACTGC
TTCAACAAATACAGGAAGAATGAAGCCAAGCGCAGAGAGGTCTTGTCGGCTGCAGCAGCAGCTGGTGTATCTGTA
GCCTTTGGAGCACCTATAGGTGGAGTATTATTACGCCTTGAAGAGGTGAGCTACTATTTTCCCCTCAAAACATTG
TGGCGTTCATTCTTTGCTGCCTTGGTGGCAGCATTACTCTACGCTCCATCAATCCATTGGGAACAGCCGCTG
GTACTATTTATGTGGAGTTTACACCCCATGGCATCTCTTTGAGCTCGTGCCATTCTTCTGCTGGGCATATTT
GGTGGTCTGTGGGGAGCACTGTTTATCCGCACAAACATTGCCTGGTGTGCGGAAGCGAAAGACCACCCAGTTGGGC
AAGTATCCTGTTATAGAGTACTCGTCGTGACAGCCATCACTGCCATCCTGGCTTTCCCAATGAATACACTCGG
ATGAGCACAAGTGAGCTCATTCTGAGCTGTTTAAATGACTGTGGCCTTCTGGACTCCTCCAAGCTCTGTGATTAT
GAGAACCCTTTCAACACAAGCAAAGGGGGTGAAGTGCCTGACAGACCGGCTGGCGTGGGAGTCTACAGTGCAATG
TGGCAGCTGGCTTTAACTACTACTGAAAATTGTCTACTATATTACCTTTGGCATGAAGATCCCTTCTGGC
CTCTTTATCCCTAGCATGGCTGTTGGTGTATAGCAGGTGACTTCTAGGAGTAGGAATGGAACAGCTGGCTTAT
TACCACCAGGAATGGACCGTCTTCAATAGCTGGTGTAGTCAAGGAGCTGATTGCATCACCCCGGCCCTTTATGCA
ATGGTTGGGGCTGCAGCCTGCTTAGGTGGGGTGACTCGGATGACTGTTTCTCTTGTGTCATAATGTTTGAAGT
ACTGGTGGCTTAGAATACATCGTGCCTCTGATGGCTGCAGCCATGACAAGCAAGTGGGTGGCAGATGCTCTTGGG
CGGGAGGGCATCTATGATGCCACATCCGTCTCAATGGATACCCCTTCTTGAAGCCAAAGAAGAGTTTGCTCAT
AAGACCTGGCAATGGATGTGATGAAACCCCGGAGAAATGATCCTTTGTTGACTGTCCTTACTCAGGACAGTATG
ACTGTGGAAGATGTAGAGACCATAATCAGTGAACCACTTACAGTGGCTTCCCAGTGGTGGTATCCCGGGAGTCC
CAAAGACTTGTGGGCTTTGTCTCCGAAGAGATCTCATTATTTCAATTGAAAATGCTCGAAAGAAACAGGATGGG
GTTGTTAGCACTTCCATCATTATTTACGGAGCATTCTCTCCATTGCCACCATACACTCCACCCACTCTAAAG
CTTCGGAACATCCTCGATCTCAGCCCTTCACTGTGACTGACCTTACACCCATGGAGATCGTAGTGGATATTTTC
CGAAAGCTGGGACTGCGGCAGTGCCTGGTTACACACAACGGGCGATTGCTTGAATCATTACCAAAAAGGATGTG
TTAAAGCATATAGCACAGATGGCGAACCAAGATCTGATTCCATTCTCTTCAACTTAGAATCATAGAGTTCTGGAT
GTAAAGCGGGAAGGACATTACAGACCATGGATATGTTGTTTAAACGGTACCCAAAACACATTTTCCATATTTGGAT
GGTGAAGTCACATTAGTGTGTTGTCTCTTTCCCTACAAGTTAACAGTTGCACTACATAATCTCTGGAAATTAATT
TTCTCTTTAGGAGAAATTATAGTTAGGCTTCCATGATGTTACATTAGGAAGATATCATGAAAAGATAAATAAGAT
TGCTATGGTTTAATTATATTTGCTTTTTAAAGATTTTTTAACTTAAAAAGTAGTTAGCCAATATGCAATCACT
GAAAACATGCAAGAGAAATTCACACCGTCTGACCTATAACCTGTAGGAAACCGACGAAAAAGTCACTCTTTTG
GGATCTAACTGTTGTTACTGGAAGACGAAGGTAACTAAGGGGCTTTGCTTTTCAAACCAGAGAAAGGAAAGCCA
GAAGGAAAAGAGTAATGGTATTTTCTAGACTGTGAAGATTCAAGTTCAAATGTTATCCTTGTTCCTGTTACAATAT
TTAGCATTATTAGTTTGTATGTGTGTATGTTTATGTTAATTTTAACTTCTGATTATAAGACAATGCTGCTTTGG
TTAATCTCTTCTAAAGGAATTTA

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FIGURE 276

MDFLEEP I P G V G T Y D D F N T I D W V R E K S R D R D R H R E I T N K S K E S T W A L I H S V S D A F S G W L L M L L I G L L S G S L A G L I
D I S A H W M T D L K E G I C T G G F W F N H E H C C W N S E H V T F E E R D K C P E W N S W S Q L I I S T D E G A F A Y I V N Y F M Y V L W A L L F
A F L A V S L V K V F A P Y A C G S G I P E I K T I L S G F I I R G Y L G K W T L V I K T I T L V L A V S S G L S L G K E G P L V H V A C C C G N I L
C H C F N K Y R K N E A K R R E V L S A A A A A G V S V A F G A P I G G V L F S L E E V S Y Y F P L K T L W R S F F A A L V A A F T L R S I N P F G N
S R L V L F Y V E F H T P W H L F E L V P F I L L G I F G G L W G A L F I R T N I A W C R K R K T T Q L G K Y P V I E V L V V T A I T A I L A F P N E
Y T R M S T S E L I S E L F N D C G L L D S S K L C D Y E N R F N T S K G G E L P D R P A G V G V Y S A M W Q L A L T L I L K I V I T I F T F G M K I
P S G L F I P S M A V G A I A G R L L G V G M E Q L A Y Y H Q E W T V F N S W C S Q G A D C I T P G L Y A M V G A A A C L G G V T R M T V S L V V I M
F E L T G G L E Y I V P L M A A A M T S K W V A D A L G R E G I Y D A H I R L N G Y P F L E A K E E F A H K T L A M D V M K P R R N D P L L T V L T Q
D S M T V E D V E T I I S E T T Y S G F P V V V S R E S Q R L V G F V L R R D L I I S I E N A R K K Q D G V V S T S I I Y F T E H S P P L P P Y T P P
T L K L R N I L D L S P F T V T D L T P M E I V V D I F R K L G L R Q C L V T H N G R L L G I I T K K D V L K H I A Q M A N Q D P D S I L F N

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FIGURE 277

CCACGCGTCCGGTGCGGACGGGCGCGGACCACCTCCAGGGGCTAAGTGATGATCTTGTACTCCGTGTTGCAGAT
TACTATTTTTTTACACCATACGTGTATCCAGCCACATGGCCAGAAGATGACATCTTCCGACAAGCTATTAGTCTT
CTGATTGTAACAAATGTTGGTGCTTACATCCTTTATTTCTTCTGTGCAACACTGAGCTATTATTTTGTCTTCGAT
CATGCATTAATGAAACATCCACAATTTTTAAAGAAATCAAGTCCGTCGAGAGATTAAGTTTACTGTCCAGGCATTG
CCATGGATAAGTATTCTTACTGTTGCACTGTTCTTGTCTGGAGATAAGAGGTTACAGCAAATTACATGATGACCTA
GGAGAGTTTCCATATGGATTGTTTGAACCTTGTCGTTAGTATAATATCTTTCTCTTTTTTCACTGACATGTTTCATC
TACTGGATTTCACAGAGGCCCTTCATCATAGACTGGTATATAAGCGCCTACATAAACCTCACCATATTTGGAAGATT
CCTACTCCATTTGCAAGTCATGCTTTTACCCTATTGATGGCTTTCTTCAGAGTCTACCTTACCATATATACCCT
TTTATCTTTCCATTACACAAGGTGGTTTATTTAAGTCTGTACATCTTGGTTAATATCTGGACAATTTCCATTTCAT
GACGGTGATTTTCGTGTCCCCCAAATCTTACAGCCATTTATTAATGGCTCAGCTCATCATACAGACCACCATATG
TTCTTTGACTATAATTATGGACAATATTTCACTTTGTGGGATAGGATTGGCGGCTCATTCAAAAATCCTTCATCC
TTTGAGGGGAAGGGACCGCTCAGTTATGTGAAGGAGATGACAGAGGGAAAGCGCAGCAGCCCTTCAGGAAATGGC
TGTAAGAATGAAAAATTATTCAATGGAGAGTTTACAAAGACTGAAATAGATTATTGCCCAGTTATTCTTAAGTAAG
GACAAAGAAGGAAATATCATCGTATTTCTTTTTTTTAATAAGGAAAAAATAATCTCCATACAGTCAAGATACATA
GTAAATGGTATCATTTGGAAATCAGCATCGTGGGCACTGCTGAGGAATGATCCTAGTGGTAGGTCAGAAGAAGAT
GCTGTGAACACCAGGACTTTAATCTTATGCTTAAATGCCAGATGTTGTTTCGGGCCCCAACTTGTATTTCTAGCA
GCAGATCTGTAGTTTGTATAGCCTCAACAACAATTTTAAATAAGATGGAGAATAAATTATTGAGGGGACTAGGCT
ATATGCATTTGCCTTCATCCACCCATGTTTATTAAGAATCATTGTGCTTAATAATACCAAGACTAAGCACCATAA
CCAAGAAATACTAATGTAAAGATTGTTTCTTGTTTCAGGAATGGTTAATTCTTCAACGTTGGTATGATAATGATA
ACTTGTTTTGACTTGAATAAAGTACTACATCAGTGTGGAAAAAATTCTGATACATTAGCAGCTATGTAAATGAC
CTAATTGATAGCAGGTGTAATAAGACTATCGTCTTCTTACACATAGGAGGCTCATTCTCTGGACACACTATCACC
TATTACATTTTACTGATTAACAAATAAATTGGAATTTAAAAATATCGATATCACCATGATTTAATCCAGATCTGG
GATTATGTAGCTAAACATTGTGATGATTATTATTTTAAACCATTATTTAATAAGAGTAAAAATATGTGAATCTGG
ATATATTTAAAAAAGAAATTTGATTGCCAGATAATATATTAGGCACTACTGATTTTTTTAGTTAAATTGATGCA
CTACACTTTTGATGTTTGAAGTTACAACCTGTAATTTTTTTGTAAAGGAAATAATTGCCAAATACCTAGGCCCAT
TGCTGACGATTAGTTCTAAAACTTATTCCTCCTCTTCTCCCCTCACTTTTCCCTACTTCTCTGCAAAAAGATT
TAACAAATACATTATAAGGAAATGTGTGTTGTAAACAAATATATTGCAAAAACATAGTTTGTAAAGGCATTCTAT
AAGCTATTTATGTAAATCAATAAAAGTTGATCATAATTAACTGTAAAAAAGGCGGC

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FIGURE 278

MDLVLRVADYYFFTPYVYPATWPEDDIFRQAISLLIVTNVGAYILYFFCATLSYYFVFDHALMKHPQFLKNQVRR
EIKFTVQALPWISILTVALFLEIRGYSKLHDDLGEFPYGLFELVVSIIISFLFFTDMMFIYWHRGLHHRLVYKRL
HKPHHIWKIPTPFASHAFHPIDGFLQSLPYHIYPFIFPLHKVVYLSLYILVNIWTISIHGDGDFRVPQILQPFING
SAHHTDHHMFFDYNYGQYFTLWDRIGGSFKNPSSFEGKGPLSYVKEMTEGKRSSPSGNGCKNEKLFNGEFTKTE

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FIGURE 279

ATGGATGAAACAGGAAATCTGACAGTATCTTCTGCCACATGCCATGACACTATTGATGACTTCCGCAATCAAGTG
TATTCCACCTTGTA CTCTATGATCTCTGTTGTAGGCTTCTTTGGCAATGGCTTTGTGCTCTATGTCCTCATAAAA
ACCTATCACAAAGAAGTCAGCCTTCCAAGTATACATGATTAAATTTAGCAGTAGCAGATCTACTTTGTGTGTGCACA
CTGCCTCTCCGTGTGGTCTATTATGTTTACAAAAGGCATTTGGCTCTTTGGTGACTTCTTGTGCCGCTCAGCACC
TATGCTTTGTATGTCAACCTCTATTGTAGCATCTTCTTTATGACAGCCATGAGCTTTTTCCGGTGCATTGCAATT
GTTTTTCCAGTCCAGAACATTAATTTGGTTACACAGAAAAAGCCAGGTTTGTGTGTGTAGGTATTTGGATTTTT
GTGATTTTGACCAGTTCTCCATTTCTAATGGCCAAACCACAAAAAGATGAGAAAAATAATACCAAGTGCTTTGAG
CCCCACAAGACAATCAAACATAAAATCATGTTTTGGTCTTGCAATTATGTGTCATTGTTTGTGGCTTTATCATC
CCTTTTGTTATTATAATTGTCTGTTACACAATGATCATTTTGACCTTACTAAAAAAATCAATGAAAAAAATCTG
TCAAGTCATAAAAAGGCTATAGGAATGATCATGGTCGTGACCGCTGCCTTTTGTAGTCAGTTTCATGCCATATCAT
ATTCAACGTACCATTCACCTTCATTTTTTACACAATGAAACTAAACCCTGTGATTCTGTCCTTAGAATGCAGAAG
TCCGTGGTCATAACCTTGCTCTCTGGCTGCATCCAATTGTTGCTTTGACCCTCTCCTATATTTCTTTTCTGGGGGT
AACTTTAGGAAAAGGCTGTCTACATTTCAGAAAGCATTCCTTTGTCCAGCGTGACTTATGTACCCAGAAAGAAGGCC
TCTTTGCCAGAAAAAGGAGAAGAAATATGTAAAGT**TAG**

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FIGURE 280

MDETGNLTVSSATCHDTIDDFRNQVYSTLYSMISVVGGFFGNGFVLYVLIKTYHKKSAFQVYMINLAVADLLCVCT
LPLRVVYYVHKGIWLFGLCRLSTYALYVNLYCSIFFMTAMSEFFRCIAIVFPVQNINLVTQKKARFVCVGIWIF
VILTSSPFLMAKPQKDEKNNTKCFEPPQDNQTKNHVLVLHYVSLFVGFIIPFVIIIVCYTMIILTLLKKSMKKNL
SSHKKAIGMIMVVTA AFLVSFMPYHIQRTIHLHFLHNETKPCDSVLRMQKSVVITLSLAASNCCFDPLLYFFSGG
NFRKRLSTFRKHSLSSTYVPRKKASLPEKGEEICKV

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FIGURE 281

GGCTTACCACAGCCTCAACTTCTCAGGCTCCAGCCATCCTCTCACCTCAGCCTCCCAAGTAGCTAGGACTACAGG
CGTGTGCCACTGTGCCTGGCCTAATTTTATAATTTTAAATGTCTGTAAAGTAAGCAAAATGACTAGTTGAATTGT
ACATTAAATATATCTAATCCCTAAGAGTTTATAATGGAAAGGGATCAAAACTTTTCAATTGCGATAAACTCAC
ATAACAAAATTAACCATTTTAAAGTGAACAATTTAGTGGTATTTAGTGCATTACAGTGTGTCGTCAGCCAACACC
TGTATCTAGTTCCAAGACATTTTCATCTCCCCAAAAGGAGACCCCATACACGTGAAGCAGTCCCTCTCCCATCCC
CCTCCTCCCATCCGCTAGCAACTGCTAATTTGCTTTTGTCTCTATGGATTTACCTGTTCTGGATATTTACATA
AATGGAATTATACAATAAAGGACCGTTTGTCTTCTAATTTCTTTCACTAAGCATCCATGTTATAGCATATATCAGA
CTTCATTCCCTTTATGACTGAATAATACTTTGCTGAATGGATATATCAGTGTATTTATTTGTCCTTTTCATCAGTTGG
TGGACATTTGGGTTCTTTCTACCTTTTGGCTATTGTGACTAGTGGTGTGCAAACATTCATGTACAAGTTTTTGT
TTGAATGCCGTGTTGTCAGTTCTTCTAGATTTATAC TTAGAAGTGAATTGCTGGGTCATATGGTAATTTCTCTGT
TTCAACTTTTTGAGAGACCACGAAACCGTTTTCCACAGTGGTGGCACCATTGACATGCCCACTAGAAATATATG
AGAGTTCCATTTTCTTCACATCTTCTGACAGCTTTTGGGGTGTGGGATGATTCGTCTAATTGGGAAAATAAGT
ACCTTATTTGGGCCTATATGGTATTTTAAATTCTGTGTGTCTGCTCCCAAACCTCTGTAGCCCTGCCCTCCCTTAT
ATTGTGTATCCTGTTTCAGATTGTTTCCGTTTCTTCTGAGACACTGCATATACCCCTACATGTATCTGTGCTAGG
CATACATCCCTGTAACCTTCATGGCATTTTTGTAAATGCTGTGTACCTGTTACGTATACTGAGTGGGAGTGTCTCA
TTTGCTGTAGAACTCTCTGCATTAGTGTAGTGTCTGGCACACAGTAGCTGCTCAGGCATTTTTTAAGTATATGAT
TATTGGGAAAACACTACAGAGCTAGGGAGAGATCTGAAGAAATACTAGAAATTTTTTCTGCAAAGAAAACCTTAGA
AAATTGTTGACATCATCTGTGGCATGCAGCAAAAGTTGATGTAAAGGAACAGAAAGACCTATGGAGATAATGGG
ATGTAATAACAGAAAACATACAGAAACAATTGGTTCTGAAATCAGTTAAGAGCAGAACTGGAATTCATACTCTGT
GGAATGAATCAGCAATGTGGAAGGAGTAACAAGATTTTTTAAAAAGATTTTGAATTTAGGCTGGGTGCAGTGGCT
CACGCCTGTAACCCCATCACTTTGGGAGGCCAGAGTAGGTGGATTGCTTCAACCCAGGCATTCGAGACTAGCCTG
GACAGCATGGCAAAACCTATCTCTACAAAAAATAAAAAATTAGCCAGGTGTGGTGGCATGCGCCTGTAGTCCCA
TCTACTTGGGAGGCTGAGGTGGATGGATCACCTGAGCCTGGGAAGTGGAGTTGCAGTAGGCTGAAGTCATGCCA
CTGCACTCAAACCTGGCGGACAGAGTGAGACCCTATCTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 282

MYKFLFECLLSVLLDLYLEVELLGHMVISLFLQFERPRNRFPQWWHLTCPLEIYESSIFFTSSDSFLGCWDDSS
NWENKYLIWAYMVFLILCVCSQTL

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FIGURE 283

GCCCCTTTCTTTCTCCTCGTCGGCCCGAGAGCAGGAACACGATAACGAAGGAGGCCCAACTTCATTCAATAAGGA
GCCTGACGGATTTATCCCAGACGGTAGAACAAAAGGAAGAATATTGATGGATTTTAAACCAGAGTTTTTAAAGAG
CTTGAGAATACGGGGAAATTAATTTGTTCTCCTACACATAGATAGGGTAAGGTTGTTTCTGATGCAGCTGAGA
AAAATGCAGACCGTCAAAAAGGAGCAGGCGTCTCTTGATGCCAGTAGCAATGTGGACAAGATGATGGTCCTTAAT
TCTGCTTTAACGGAAGTGTGAGAAGACTCCACAACAGGTGAGGACGTGCTTCTCAGTGAAGGAAGTGTGGGGAAG
AACAAATCTTCTGCATGTGCGAGGAAACGGGAATTCATTCCTGATGAAAAGAAAGATGCTATGTATTGGGAAAAA
AGGCGGAAAAAATAATGAAGCTGCCAAAAGATCTCGTGAGAAGCGTCGACTGAATGACCTGGTTTTAGAGAACAAA
CTAATTGCACTGGGAGAAGAAAACGCCACTTTAAAAGCTGAGCTGCTTTCCTAAAATTAAGTTTGGTTTTAATT
AGCTCCACAGCATATGCTCAAGAGATTGAGAACTCAGTAATTCACAGCTGTGTACTTTCAAGATTACCAGACT
TCCAAATCCAATGTGAGTTTCAATTTGTGGACGAGCACGAACCTCGATGGTGTCAAGTAGTTGTATTTCTGTCTATT
AAACACTCTCCACAAAGCTCGCTGTCCGATGTTTTAGAAAGTGTCTCAGTAGAACACACGCGAGGAGACTCTGTG
CAGGGAAGCTGCAGAAGTCTGAAAACAAGTTCCAGATTATCAAGCAAGAGCCGATGGAATTAGAGAGCTACACA
AGGGAGCCAAGAGATGACCGAGGCTCTTACACAGCGTCCATCTATCAAAACTATATGGGGAATTTCTTCTCTGGG
TACTCACACTCTCCCCCACTACTGCAAGTCAACCGATCCTCCAGCAACTCCCCGGGAACGTGCGAAACTGATGAT
GGTGTGGTAGGAAAGTCATCTGATGGAGAAGACGAGCAACAGGTCCCCAAGGGCCCCATCCATTCTCCAGTTGAA
CTCAAGCATGTGCATGCAACTGTGGTTAAAGTTCCAGAAGTGAATTCCTCTGCCTTGCCACACAAGCTCCGGATC
AAAGCCAAAGCCATGCAGATCAAAGTAGAAGCCTTTGATAATGAATTTGAGGCCACGCAAAAACCTTTCTCACCT
ATTGACATGACATCTAAAAGACATTTGAACTCGAAAAGCATAGTGCCCCAAGTATGGTACATTCTTCTCTTACT
CCTTTCTCAGTGCAAGTGAATAACATTCAAGATTGGTCTCTCAAATCGGAGCACTGGCATCAAAAAGAACTGAGT
GGCAAAAACCTCAGAATAGTTTCAAACCTGGAGTTGTTGAAATGAAAGACAGTGGCTACAAAGTTTCTGACCCAGAG
AACTTGTATTTGAAGCAGGGGATAGCAAACCTTATCTGCAGAGGTTGTCTCACTCAAGAGACTTATAGCCACACAA
CCAATCTCTGCTTCAGACTCTGGGTAAATTACTACTGAGTAAGAGCTGGGCATTTAGAAAAGATGTCATTTGCAAT
AGAGCAGTCCATTTTGTATTATGCTGAATTTTCACTGGACCTGTGATGTCATTTCACTGTGATGTGCACATGTTG
TCTGTTTGGTGTCTTTTTGTGCACAGATTATGATGAAGATTAGATTGTGTTATCACTCTGCCTGTGTATAGTCAG
ATAGTCCATGCGAAGGCTGTATATATTGAACATTATTTTTGTTGTTCTATTATAAAGTGTGTAAGTTACCAGTTT
CAATAAAGGATTGGTGACAAACACAGAAAAA

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FIGURE 284

MLRKMQTVKKEQASLDASSNVDKMMVLNSALTEVSEDSTTGEDVLLSEGSVGKNKSSACRRKREFIPDEKKDAM
YWEKRRKNNEAAKRSREKRRLNDLVLENKLIALGEENATLKAELLSLKLKFLISSTAYAQEIQKLSNSTAVYFQ
DYQTSKSNVSSFVDEHEPSMVSSSCISVIKHSPQSSLDVSEVSSVEHTQESSVQGSCRSPENKFQIIKQEPMEL
ESYTREPRDDRGSYTASIYQNYMGNSFSGYSHSPPLLQVNRSSSNSPGTSETDDGVVGKSSDGEDEQQVPKGP IH
SPVELKHVHATVVKVPEVNSSALPHKLRIKAKAMQIKVEAFDNEFEATQKLSSPIDMTSKRHFELEKHSAPSMVH
SSLTPFSVQVTNIQDWSLKSEHWHQKELSGKTQNSFKTGVVEMKD SGYKVSDPENLYLKQGIANLSAEVVSLKRL
IATQPIASDSG

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FIGURE 285

CTGGGCCGGGGCTGGAGAGTGACCGTGGTCTGAGTGACCTGGGGCGGGCTGCGTGGGCCGGGGTGGGCCTCAAAG
CCGGGCACCAGACGGGAGGGGCGGCGCTCGGGCCGCGCGCTGCCCGCGCCGGTCTTGGCGGGCGGCGAGGCTGG
GGCTGACTCCTGCCTCAGGATGCCGGGGAGGAAGAGGAGCGGGCCTTCTGGTGGCCCGCGAGGAGCTGGCGAG
CGCCCTGAGGAGGGATTCCGGGCAGGCGTTTTCCCTGGAGCAGCTCCGGCCGCTACTAGCCAGCTCTCTGCCGCT
AGCCGCCCCGCTACCTGCAGCTGGACGCCGACGCC TTGTCCGCTGCAACGCTCATGGGGAGCCCCGAACTACCT
CAACACCCTGTCCACGGCTCTGAACATCCTGGAGAAATACGGCCGCAACCTTCTCAGCCCTCAGCGGCCTCGGTA
CTGGCGTGGTGTCAAGTTTAATAACCCTGTCTTTCGCAGCAGCGTGGATGCTGTGCAGGGGGGCGGAGATGTGCT
GCGATTATATGGCTACACAGAGGAGCAACCAGATGGGTTGAGCTTCCCCGAAGGGCAGGAGGAGCCAGATGAGCA
CCAGGTTGCTACAGTCACACTGGAAGTACTGCTGCTTCGGACAGAGCTCAGCCTGCTATTGCAGAATACTCATCC
AAGACAGCAGGCACTGGAGCAGCTGTTGGAAGACAAGGTTGAAGATGATATGCTGCAGCTTTCAGAATTTGACCC
CCTATTGAGAGAGATTGCTCCTGGCCCCCTCACCACACCCTCTGTCCCAGGCTCCACTCCTGGTCCCTGCTTCTCT
CTGTGGTTCTGCCCCAGGCACACTGCACTGCCCATCCTGTAAACAGGCCCTGTGTCCAGCCTGTGACCACCTGTT
CCATGGACACCCATCCCGTGTCTCATCACCCTCCGCCAGACCCTGCCTGGGGTCTGCAGGGTACCCACCTGAGCCC
CAGTTTACCTGCCTCAGCCCAACCACGGCCCCAGTCGACCTCCCTGCTGGCCCTGGGAGACAGCTCTCTTCTTC
CCCTAATCCTGCAAGTGCTCATTGCCCCTGGCACTGTGCTGCCTGTGCCATGCTAAATGAGCCTTGGGCAGTGCT
CTGTGTGGCCTGTGATCGGCCCCGAGGCTGTAAGGGGTTGGGGTTGGGAACTGAGGGTCCCCAAGGAACTGGAGG
CCTAGAACCCTGATCTTGACAGGGGTCGGTGGGCCTGCCAGAGCTGTACCTTTGAGAATGAGGCAGCTGCTGTGCT
ATGTTCCATATGTGAGCGACCTCGGCTGGCCAGCCTCCCAGCTTGGTGGTGGATTCCCGAGATGCTGGCATTG
CCTGCAACCCCTTCAGCAGGGGGATGCTTGTGTCCTCTGCCAGAGTCAAGTCTGGTACTGTATTCACTGTAC
CTTCTGCAACTCGAGCCCTGGCTGGGTGTGTGTTATGTGCAACCGGACTAGTAGCCCCATTCCAGCACAAATGC
CCCCGGCCCTATGCCAGCTCTTTGGAAAAGGGACCCCCCAAGCCTGGGCCCCACGACGCCCTAGTGCCCCCT
GCCAGTTCTGTGGAGATCCTGAGAAGCAGCGCCAAGACAAGATGCGGAAGAAGGCCTCCAGCTAGTGAGCAT
GATCCGGGAAGGGGAAGCCGAGGTGCTGTCCAGAGGAGATCTTCTCGGCTCTGCAGTACTCGGGCACTGAGGT
GCCTCTGCAGTGGTTGCGCTCAGAACTGCCCTACGTCTGAGATGGTGGCTGAGCTGGCTGGACAGCAGGACCC
TGGGCTGGGTGCCCTTTCTCTGTCAGGAGGCCCGAGAGCCTGGCTGGATCGTCATGGCAACCTTGATGAAGCTGT
GGAGGAGTGTGTGAGGACCAGGCGAAGGAAGGTGCAGGAGCTCCAGTCTCTAGGCTTTGGGCTGAGGAGGGTC
TCTCCAGGCATTGTTCCAGCACGGAGGTGATGTGTACGGGCCCTGACTGAGCTACAGCGCCAACGCCCTAGAGCC
CTTCCGCCAGCGCCTCTGGGACAGTGGCCCTGAGCCCACCCCTTCTTGGGATGGGCCAGACAAGCAGAGCCTGGT
CAGGCGGCTTTTGGCAGTCTACGCACTCCCAGCTGGGGCCGGGCAGAGCTGGCACTGTCACTGCTGCAGGAGAC
ACCCAGGAACATATGAGTTGGGGGATGTGGTAGAAGCTGTGAGGCACAGCCAGGACCGGGCCTTCTGCGCCGCTT
GCTTGGCCAGGAGTGTGCCGTGTGTGGCTGGGCC TGCCCCACAACCGGATGCAGGCCCTGACTTCTGTGAGTG
CACCATCTGTCTGACTGCTTCCGCCAGCACTTACCATCGCCTTGAAGGAGAAGCACATCACAGACATGGTGTG
CCCTGCCTGTGGCCGCCCCGACCTCACCAGTGACACACAGTTGCTCAGCTACTTCTCTACCCCTTGACATCCAGCT
TCGCGAGAGCCTAGAGCCAGATGCCTATGCGTTGTTCATAAGAAGCTGACCGAGGGTGTGCTGATGCGGGACCC
CAAGTTCTTGTGGTGTGCCCAGTGCTCCTTTGGCTTCATATATGAGCGTGAGCAGCTGGAGGCAACTTGTCCCCA
GTGTCACCAGACCTTCTGTGTGCGCTGCAAGCGCCAGTGGGAGGAGCAGCACCGAGGTGCGAGCTGTGAGGACTT
CCAGAACTGGAAACGCATGAACGACCCAGAATACCAGGCCAGGGCCTAGCAATGTATCTTCAGGAAAACGGCAT
TGACTGCCCCAAATGCAAGTTCTCGTACGCCCTGGCCCCGAGGAGGCTGCATGCACTTTCACTGTACCCAGTGCCG
CCACCAGTTCTGCAGCGGCTGCTACAATGCCTTTTACGCCAAGAATAAATGTCCAGAGCCTAACTGCAGGGTGAA
AAAGTCCCTGCACGGCCACCACCTCGAGACTGCC TCTTCTACCTGCGGGACTGGACTGCTCTCCGGCTTCAGAA
GCTGCTACAGGACAATAACGTCATGTTTAATACAGAGCCTCCAGCTGGGGCCCGGGCAGTCCCTGGAGGCGGCTG
CCGAGTGATAGAGCAGAAGGAGGTTCCCAATGGGCTCAGGGACGAAGCTTGTGGCAAGGAACTCCAGCTGGCTA
TGCCGGCCTGTGCCAGGCACACTACAAAGAGTATC TTGTGAGCCTCATCAATGCCCACTCGCTGGACCCAGCCAC
CTTGTATGAGGTGGAAGAGCTGGAGACGGCCACTGAGCGCTACCTGCACGTACGCCCCAGCCTTTGGCTGGAGA
GGATCCCCCTGCTTACCAGGCCCGCTTGTACAGAAGCTGACAGAAGAGGTACCCTTGGGACAGAGTATCCCCCG
CAGGCGGAAGTAGCTGAGGGCAAGGGTCCCGATGAGGGTCCCATGGCCTGCTCCCTCAGGAACAGCTCCAGCACC
AATAAAGAGGCATCTTACCACCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 286

MPGEEEEERAFVLVAREELASALRRDSGQAFSLEQLRPLLASSLPAAARYLQLDAARLVRCNAHGEPRNYLNTLSTA
LNILEKYGRNLLSPQRPRYWRGVKFNPNVFRSTVDAVQGGRDVLRLYGYTEEQPDGLSFPEGQEEPDEHQVATVT
LEVLLLRTELSLLLQNTHPRQQALEDKVEDDMLQLSEFDPLLREIAPGPLTTPSVPGSTPGPCFLCGSAPG
TLHCPSCQALCPACDHLFHGHPSRAHHLRQTLPGVLQGTHLSPSLPASAQPRPQSTSLALGDSSLSSPNPASA
HLPWHCAACAMLNEPWAVLCVACDRPRGCKGLGLGTEGPQGTGGLEPDLARGRWACQSCTFENEAAAVLCSICER
PRLAQPPSLVDSRDAGICLQPLQQGDALLASAQSQVWYCIHCTFCNSSPGWVCVMCNRTSSPIPAQHAPRPYAS
SLEKGPPKPGPPRRLSAPLPSSCGDPEKQRQDKMREEGLQLVSMIREGEAAGACPEEIFSALQYSGTEVPLQWLR
SELPYVLEMVAELAGQQDPGLGAFSCQEARAWLDRHGNLDEAVEECVTRRRRKVQELQSLGFGPEEGSLQALFQ
HGGDVSRA TELQRQRLEPFRQRLWDSGPEPTPSWDGPDQKQSLVRRLLAVYALPSWGRAELALSLLQETPRNYEL
GDVVEAVRHSQDRAFLRRLLAQECAVCGWALPHNRMQALTSECTICPD CFRQHFTIALKEKHITDMVCPACGRP
DLTDDTQLLSYFSTLDIQLRESLEPDAYALFHKKLTEGVLMRDPKFLWCAQCSFGFIYEREQLEATCPQCHQTF
VRCKRQWEEQHRGRSCEDFQNWKRMDPEYQAQGLAMYLQENGIDCPKCKFSYALARGGCMHFHCTQCRHQFCSG
CYNIFYAKNKCPEPNCRVKKSLHGHHPRDCLFYLRDWTALRLQKLLQDNNVMFNTEPPAGARAVPGGGCRVIEQK
EVPNGLRDEACGKETPAGYAGLCQAHYKEYLVSLINAHSLDPATLYEVEELETATERYLHVRPQPLAGEDPPAYQ
ARLLQKLTEEVPLGQSIPRRRK

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FIGURE 287

CGGCGGCGGCGACAGGACCGAGGGGCCTTAGTTGGTGGGCAAGTCGGGGATCCCAGAAAGAGAAGCGTGACCCGG
AAGCGGAAACGGGTGTCCGTCCCAGCTCCGGCCTGCCAGTGAGCTTCTACCATCATGGACCTATTGTTCCGGGCGC
CGGAAGACGCCAGAGGAGCTACTGCGGCAGAACCAAGAGGGGCCCTGAACCGTGCCATGCGGGAGCTGGACCGCGAG
CGACAGAAACTAGAGACCCAGGAGAAGAAAATCATTCAGACATTAAAGAAGATGGCCAAGCAAGGCCAGATGGAT
GCTGTTTCGCATCATGGCAAAAGACTTGGTGCACACCGGCGTTATGTGCGCAAGTTTGTATTGATGCGGGCCAAC
ATCCAGGCTGTGTCCCTCAAGATCCAGACACTCAAGTCCAACAACCTCGATGGCACAAGCCATGAAGGGTGTACC
AAGGCCATGGGCACCATGAACAGACAGCTGAAGTTGCCCCAGATCCAGAAGATCATGATGGAGTTTGAGCGGCAG
GCAGAGATCATGGATATGAAGGAGGAGATGATGAATGATGCCATTGATGATGCCATGGGTGATGAGGAAGATGAA
GAGGAGAGTGATGCTGTGGTGTCCAGGTTCTGGATGAGCTGGGACTTAGCCTAACAGATGAGCTGTGGAACCTC
CCCTCAACTGGGGGCTCGCTTAGTGTGGCTGCTGGTGGGAAAAAAGCAGAGGCCGCAGCCTCAGCCCTAGCTGAT
GCTGATGCAGACCTGGAGGAACGGCTTAAGAACCTGCGGAGGGACTTGAGTGCCCCCTGCCACTCCGAGATAACCAG
TGGATGCCCAGGATCTTTTACCACAACCCCTCTGTAATAAAAGAGATTTGACACTAAAAAAAAAAAAAAAAAAAAA
AAA

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FIGURE 288

MDLLFGRRKTPEELLRQNQRALNRAMRELDREKQKLETQEKKIADIKKMAKQGQMDAVRIMAKDLVRTRYVRK
FVLMRANIQAVSLKIQTLKSNNMAQAMKGVTKAMGTMNRQLKLPQIQKIMMEFERQAEIMDMKEEMMNDAIDDA
MGDEEDEEESDAVVSQVLDELGLSLTDELSNLPSTGGSLSVAAGGKAEAAAASALADADADLEERLKNLRRD

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FIGURE 289A

TTCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACAATGTTGTCAAGACTTTTTCGAATGC
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGACACTGACCATCTGCATGATGTCCA
TGAACATGTTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGGATGTTTTGA
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCAGAATTTAC
GTCAACTTGGATCAAAATATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTTGTATTTCAGTACAG
TTGTCATTCACTTCTTAGACAAAAGATTGACAGGCTTGAATGAAGCTTTGCCCTTTTCTACTTTTGATTGACC
TTTCCAGAGCAAGCACATTAGCAAAGTTTGCCCTCAGTTCCAACACAGGATGAAGTAAGGGAAAATATTGCTC
GTGGAATGGCAATTTAGGTCCTACGTTTACCCTCGATGCTCTTGTGAATGTCTTGTGATTGGAGTTGGTACCA
TGTCAGGGGTACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCA
TGACTTTCTTCCCAGCTTGTGTGCTCTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTTCGTCCAATTTGGC
AGCTCAGCCATTTTGCCGAGTTTGAAGAAGAAAGAAAATAAGCCGAATCCTGTAACCTCAGAGGGTCAAGATGA
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG
CAGATACTTCTAAGGTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTCCTCTGGC
AGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAAATCTACACTCTCATTAAAAAACCTATCACATCTCCTGTAG
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT
CAGTAGAGGAAGAGACAGGGGATAAACCGAGAAAGAAAGTTGAGGTTATAAAACCTTAGTGGCTGAAACAGATA
CCCCAAACAGAGCTACATTTGTGGTTGGTAACTCCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC
CTGAAATTGAACCTCCCAGGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCATATCCCAGCCTACAAGTTGGAACTC
TGATGGAACTCATGAGCGTGGTGTATCTATTGCGCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTGTGAGAATGTTATTGGATATA
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAAATTTAGGTTCCAATGGCAACAACAG
AAGGTTGTCTTGTGGCCAGCACCAATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC
TTGCAGATGGGATGACTCGTGGCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAAGTGAAGCCTGGC
TCGAAACATCTGAAGGGTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTTGCACGTCTACAGAAAC
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTGAGGGGATGCCATGGGGATGAACA
TGATTTCAAAGGGTACAGAGAAAGCACTTTCAAACCTTACAGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAAATCTGTTGTTTGTG
AAGCTGTCAATCCAGCCAAGGTGTGCAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACCTGTATTACTTTAATGGAAGCAA
GTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA
CCAACCTACTACCTCAGCAAGCCTGTTTGCAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA
ATGCCCCGGCAGCTTGCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACTTATGGCAGCATTGGCAG
CAGGACATCTTGTCAAAGTCAATGATTCAACAACAGGTGCAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA
CCAAGAAGACAGCCTGAATAGCCCGACAGTTCTGAACTGGAACATGGGCATTTGGGTTCTAAAGGACTAACATAAA
ATCTGTGAATTAAGAAAGCTCAATGCATTGTCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG
TTTTTGGCTCTTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGTCA
CCTCTGAAAGCAAATATAAGCTGGGAAAAAAGTTTGTATGAAATTTGAAGTTTATGGTGATCAGTGCAATTGA
CCTTCTCCCTCACTCCTGCCAGTTGAAAAATGGATTTTAAATTATACTGTAGCTGATGAACTCCTGATTTTGT
GTTAATTTATTAAGTCTGGGATGTAGAATCTCAAGAAGTAAGAGCTAAGTTCTAAGTTTATGTTTGTAAATTAAT
ACTTCATTTGGTGTGCTGCTATTTTGTATTTGGGGGTAATCAGCATTATTCTTCAGAAGGGGACCTGTTTTCTT
CAAGGGAAGAAACACTCTTATTTCCAAACTACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAAAC
AAATCACTGTATTTATCTCCGAGGCTATTTGTTTCAGAGAGGCCTTTTGTAAATATAAATGTTTAAATATAAA
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAAGAAACACAGGGTTTTGTATTCTTTACT
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT

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FIGURE 289B

CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTTA
TTTAGTTGAAAAATCTAGTTTTTTTTTGTAAGTGTACCAAATCTGTATATGTTGTAATAAACTTATGCTAGTTT
ATTGGAAGTGTTCAAGAAATAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG
TTCTTTAATGTTGTCAGGAAACCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT
GAAGGAGCCACGTGAATGGCCCTAGAACTGTGCCTAGTTTCTGTGGCCAGGAGGTTGGTGACTGAAACATTTCACA
CAGGGCTCTTGATGGACCCACGAACGCTCTTAGCTTTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT
TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTGTATTACATCTAATGCTTAAGTGTTGCTCT
TGGAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT
CTTAGTGATTGTGTCTGCATTGTTATTGTGGAAGATTTACCTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG
TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAAA
AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTATAGAA
TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA

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FIGURE 290

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSNMFTGNKICGWNIECPKFEEDVLSSDIIILTITRCIAILY
IYFQFQNLRLQSGKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLSRASTLAKFALSSNSQ
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMFFPACVSLVLELSRE
SREGRPIWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSLGLDENVSKR
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTTETESTLSLKNPITSPVVTQKKVPDNCCRREPML
VRNNQKCDSEEEETGINRERKVEVIKPLVAETDTPNRATFVVGNSLLDTSSVLVTQEPEIELPREPRPNEECLQ
ILGNAEKGAFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSIIRQLLSKKLSEPSSLQYLPYRDYNSLVMGA
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRCRAIGLGGGASSRVLADGMTRGPVVRLPAC
DSAEVKAWLETSEGFAVIKEAFDSTSRFARLQKLHTSIAGRNLIRFQSRSGDAMGMNMISKGTEKALSKLHEYF
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA

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FIGURE 291

GAGAAGGCCAGGAAGTGACGGCCGCTCCCGGCTACCGGGGACTTCTGGAGTCCGAGAAGTCAACGGCGCGGTT
GCTGCGGCCGCGCGCTCCCCGGCCCGAGGCG**ATCG**GAGAACGGAGCGGTGTACAGCCCCACTACGGAGGAGGACC
CGGGCCCCGCCAGAGGCCCCCGAGCGGCCTCGCTGCCTACTTTTTCATGGGCGCGCTCCCATTGCTCCGGCGCG
TTCTCAAGGGCTTGCACTGTTGCTGTCTCTGCTGGCCTTCATCTGTGAAGAAGTTGTATCACAATGTACTTTAT
GTGGAGGACTTTATTTTTTTGAGTTTGTAAGCTGCAGTGCCTTTCTTCTGAGTCTCCTTATACTGATTGTGTATT
GCACTCCATTTTATGAGAGAGTTGATACCAAAAAGTAAAATCATCGGATTTTATATTACTTTGGGAACAGGAT
GTGTGTTTTTGTGGCATCCATCATTTTTGTTTCCACACATGACAGGACTTCAGCTGAGATTGCTGCAATTGTGT
TTGGATTATAGCAAGTTTTATGTTTCTACTTGACTTTATCACTATGCTGTATGAAAAACGACAGGAGTCCCAGC
TGAGAAAACCTGAAAATACCACTAGGGCTGAAGCCCTCACTGAGCCACTTAATGCC**TAA**AGACTCTGGGGAGCAG
ATGTTACCTAAGGTAGTGACCCTGCATTGTGGTGCCTGAGCCCTGGCAGAAGCTCTTGTAATAATTTGTTAATTGT
TTAAACCACTTCTTTTGGAGAGCAAGGGGAAGGTCAAGAAGGCAGTTTTATCAATATTGTGTCACTCACCACAAA
GTAGGCCAGATAAGTTAAAAAAATTTTTTTTTTAAATAATAATTGAACTTATCTCAAATGGAGATTTTGGTGGG
AGGAGGAGAAAACAATTGTTTTTAAATCACACAGCTCAACGGTTGATAAATGATTCTGTCATTCTGTTACAGGTC
ATTCTTTTACTAGGCTTAGCTTCCAAATTATGCTTTATAGCTGTATAAACATCGTGATTATATTCATCTACTTAG
AAATTGTTTTATTTTTAAATTAATTTGCTTAGCTGTTTGTGTTGATGCTTAGATTATGTTCTGTTAATGGGAATT
TAACATATTTAAGAAACCAATATTTAAATGTTGGTCTAGGTTTTTTTCCTTAACATATATTACCAGGCTTTACT
GTATTTCACTCAGCCTTAAATGTTATAATATTTTTGGATAACGGTTATTAATTCTTTGAGACCTTCGTATAGCCT
ATAAAATGTATGGGAGATGTTGGTATTTTATGTGTATAAAAGCAACAATATCAGCAACTTCGTGTTTATACTGCA
CCTTGGTTGTTGATGTCAAGTAAAAAAAGATTGTTTTGTAACACATAAAAAAATGGAAGAACTGATACCACAC
CTAAGGACCAAAGATAAGAAAGACTTTTTGCCCAAGACAGTGAAAGTAATTATAAAAACAAGCTTTGACCACTTA
CCAAGTATCTGAAGAGATGAGTTCATACTATGATTTAGAAAGTGGTTTCGATTCCCCTGTTGGCATATGATTATTT
TTACTAAAATTAATACAGCTCTGTGGTCTTCCTTAGTGTTTTCTTTGAAGCCAATCTGTTTTTTTTTAGGACACC
AGCCTTTGGTTTTTTCATCTGTTGAGATGCCTCTTCTGTCTCCTTATCAGATAGAAATGGAGTCATGTGCTGC
TGCTTCATCTAGCAGAGGTTGGCCTCTGGCTCTGACACTTTTTGTCAGTTGTCTTTAGGTGGTCTGAATCTTGG
GCCCTTTGATTGTGAATACTGTGTAGCAGGATCTTGAGAGTCCTTGTTCTTACATAGGCATTGCTCTAGTTTGT
CTTTGGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 292

MENGAVYSPTEEDPGPARGPRSGLAAYFFMGRPLLRRLKGLQLLSLLAFICEEVVSQCTLCGGLYFFEFVS
CSAFLLSLLILIVYCTPFYERVDTTKVKSDFYITLGTGCVFLLASIIFVSTHDRTSAEIAAIVFGFIASFMFL
DFITMLYEKRQESQLRKPEPNTTAEALTEPLNA

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FIGURE 293A

AGCGCATGGAGCCAGAGGAGGAGGATGAACTAGGCTCAGGGCGGGATGTGGATTCCAACCTCCAACGCGGACAGTG
AGAAATGGGTGGCAGGAGATGGTTTGAAGAACAGGAATTTTCTATCAAGGAGGCAAACCTTCACAGAGGGGAAGTC
TGAAGCTAAAGATTACAGACCACAAAGCGGGCTAAGAAACCCCCAAAGAATTTGGAGAAGCTATATATGTCCACCTG
AGATCAAGATCACCATCAAGCAGTCTGGGGACCAGAAGGTGTCCCGTGCTGGAAAAATAGCAAAGCCACGAAGG
AGGAAGAAAGAAGCCACTCCAAAAAGAAGCTCCTCAGAGCCAGTGACCTTGCAGCCAGTGACCTCAAAGGATTTTC
AGCCACAGGCTTACGAAAGGCCCCAGAAACATTCAACTCTCCATTATGACACGGGCCTCCACAGGACTTCACCG
GTGACACCTTAAAAACCAAGCACCAGCAAAAAAGCAGCAGCCAGAACCACATGGACTGGTCCACCAACTCTGACA
GCGGACCCGTCACCTCAGAATTGCTTTCATCAGTCCAGAGTCTGGCAGAGAACTGCAAGCACCAGCAAGATCCCCG
CTCTTGAGCCCCGTGGCTTCTTTGCAAAGGCCCCAGGGTAAGAAAGGCAGTGACAGGGAACACGTGGAGTCAGTTGT
CTAACAATAACAAAGATCTGCTCTTGGGAGGTGTGGCTCCATCCCCAAGCAGCCACAGCTCACCAGCCCCACCCA
GCAGCTCTGCTGAGTGCAACGGGCTTCAGCCCTTGGTGGATCAAGATGGAGGAGGTACAAAGGAGCCCCCAGAAC
CACCTACGGTGGGCAGCAAGAAAAAGTCCAGTAAAAAGATGTGATAAGTCAGACCATAACCAAAACCAGACCTGG
ATTGGGTCAAGATGCCCAGAAAGCATTGACAATACAGAAGGGAAAAAGGGAAGGTTATTCCGCAGATAGTGCCC
AAGAGGCATCACCAGCCAGGCAGAACGTGAGTTCTGCCAGTAATCTGAAAATGACTCAAGTCATGTCCGGATTA
CTATCCCCATCAAGGCACCCTCTCTGGATCCAACCAACCATAAGAGGAAAAAAGACAGTCCATTAAAGCGGTGG
TGGAAAAGATCATGCCAGAGAAAGCCTTGGCTTCTGGAATCACCATGAGCAGTGAAGTAGTTAACAGGATACTTT
CCAACCTCTGAGGGGAATAAGAAGGATCCCCGTGTCCCTAAGTTGAGTAAAAATGATAGAGAATGAGTCCCCCTCAG
TTGGCCTTGAACTGGTGGAAATGCTGAGAAAGTTATCCCAGGAGGTGTGTCTAAGCCGCGGAAGCCACCCATGG
TCATGACACCTCCAACGTGCACAGATCACTCTCCATCCAGAAAGCTGCCAGAAATCCAGCATCCAAAATTTGCTG
CAAAACGAAGGTGGACTTGCAGCAAAACCAAAACCTAGCACCATGCTTCGAGAGGCAGTTATGGCCACCTCTGATA
AACTGATGCTGGAGCCCCCGTCTGCATATCCCATCACCCCATCCAGCCCTCTCTACACCAACACAGACAGTCTTA
CTGTGATCACTCCAGTCAAAAAGAAGCGGGGACGACCAAGAAGCAGCCTTTGCTCACAGTCGAGACGATTCTATG
AGGGAACCTCCACCAGCCCCGTGCTAGTCCCATCAGCCGAGAGTTTTCTGGCACTAAGAAAAGAAAGCGACGACGCA
ATTTAGCGAAGTTGGCCCAGCTAGTGCCGGGAGAGGACAAACCCATGAGCGAGATGAAATTTTACAAGAAAGTTG
GAAAGCTCGGCGTGTGGATAAGAAGACCATCAAACTATCAATAAGATGAAGACACTCAAGAGGAAAAACATCT
TGAATCAGATCTTGTCTGTTCAGCAGCGTTGCTCTGAAGGCAAAAGCTCCCCCAGAGACCAGCCCTGGGGCAG
CAGCCATTGAAAGCAAACTGGGCAAGCAGATTAATGTCAGCAAGAGGGGAACCATCTACATTGGCAAGAAGCGGG
GCAGGAAGCCAAGAGCAGAGCTGCCACCCCATCCGAAGAACCAAAACAGCCATCAAGCACCCAGGCCTGTTT
CTAGCCAGCCGGATGTTCCAGCCGTGCCCTTCCAACTTTCAGTCACTTGTGGCGTCTTCACCAGCAGCTATGCACC
CACTTTTCAACACAGTTAGGTGGGTCCAATGGCAACCTGAGCCCTGCCAGCACTGAAACCAATTTTTTTCAGAGTTGA
AACTATGCCAAATCTCCAGCCCATCAGTGCTCTTCCAACCAAAACCAAAAGGGGAATACACAGTGGAACCTGGA
AGCTGTCTCCACCCAGACTGATGGCCAACCTCCCTTCACACCTGTGCGAGATTGGCTCCCTAAAGGAAATCACGC
TGTCCCTGTGAGCGAGTCCCACAGTGAGGAGACGATCCCCAGCGACAGCGGCATTGGGACAGACAACAACAGCA
CTTCTGACCAAGCGGAGAAGAGCTCAGAATCCCGAAGGAGGTACTCTTTTGATTCTGCTCCCTGGACAACCCGG
AGGCCATTCCGTCCGACACCAGCACAAAGAACCGGCATGGCCACCGGCAAAAGCATCTCATTGTGGACAACCTTC
TGGCCACGAAAGCCTCAAGAAGCCAAAGCACAAAGAGGAAACGGAAGCCTGCAAAACCCGCGATGACCTCCAGT
TTCTGGCAGACCTGGAGGAGCTAATCACCAGTTCCAAGTGTTTCAAGATCTCCCACCGGAGTTACACCTTCTACC
ACGAGAATCCATATCCCAGCATTTTTTCGGATTAATTTTGATCACTATTACCCGGTGCCATATATCCAGTATGACC
CGTTGCTCTATCTTCGTAGGACTTCAGACTTGAAGTCAAAGAAGAAGCGTGGTAGGCCTGCAAAAACCAATGACA
CCATGACAAAGGTGCCTTTTTTACAAGGGTTTCACTTACCCTATTCCCAGTGGAAGTTACTATGCACCCTATGGAA
TGCTTTACACATCAATGCCTATGATGAACCTTGGTTATTACGGTCAGTACCCAGCTCCTTTGTACCTATCGACA
CGCTTGGAGCAGCTTCCCCATTATGAGGCCAACAGTGCCACCACCTCAGTTCCACACAACTCCCACATAAAGA
TGTCGGGTGCAGCTAAGCATAAAGCCAAGCATGGAGTACACCTGCAGGGACCTGTTAGCATGGGCCTTGGTGACA
TGCAGCCTTCTCTGAACCTCCCAAGGTAGGCAGTGCCAGTCTGTCCAGTGGTTCGGCTCCATAAGAGGAAACACA
AACACAAGCATAAGCACAAAGGAAGACCGGATCCTAGGGACCCATGACAACCTGAGTGGTCTTTTTTGACGGCAAAG
CCACAGGCTTCTCCAGCCACATCCTGAGCGAGCGGTGAGTAGCGCAGACAAAGAGCTCCCGCTGGTGAGTGAGA
AGAACAAGCATAAGGAGAAACAGAAAGCACCAGCACAGCGAAGCCGGCCACAAAGCTTCTAAGAACAACCTTGAGG
TGGACACCCTGTCTACACTGTCACTTTCCGACGCCCAGCATTGGACACAGGCCAAGGAAAAAGGAGACTTGAGCA

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FIGURE 293B

GTGAGCCTGTGGACTCATGCACGAAAAGATACTCTGGCAGTGGCGGGGATGGTGGCAGCACGAGATCGGAGAACC
TGGACGTGTTTCAGTGAAATGAACCCCTTCGAATGACAAGTGGGACAGTGACGTGAGTGGGAGTAAAAGGAGGAGCT
ATGAAGGCTTTGGAACTACAGGGAAGGACATCCAAGCCTTCAAGATGAACCGCAAGGAGAGAAGTTCTTATG
ACTCCTCCATGTCTCCAGGGATGCCAAGTCCCCACTTAAAAGTGGACCAGACAGCAGTGCATAGTAAGAACGAAG
GCTCAGTGGCCACCATGATGACCAGGAAGAAGCCAGCCGAGTTGACAGTGTTACAATTCCACCAGCCCCAGTGT
TATCTCTCCTTGCTGCATCTGCAGCAACGTCGGATGCAGTCGGCTCCTCCCTGAAGAAGAGGTTCAAGCGGCGGG
AGATCGAAGCCATCCAGTGCGAAGTGCAGGAAGATGTGCAACTACACCAAGATCCTGTCCACCAAGAAGAACCTGG
ACCACGTGAACAAGATCCTGAAGGCCAAGCGGCTGCAGAGACAATCAAAAACAGGCAACAACCTTCGTGAAGAAGA
GGCGCGGGCGTCCCAGGAAGCAGCCCACCCAGTTTCGATGAGGACTCCAGAGACCAAATGCCGGTGCTGGAAAAAT
GCATCGACCTGCCCAGCAAAAGAGGCCAGAAGCCAGCCTGAGCCCCGTGGTGCTGGAGCCCCGCCGCCAGCCAAG
ACACCATCATGGCCACCATCGAGGCGGTTCATCCACATGGCCCCGGGAGGCGCCGCCCTGCCCGGCCACCGCCGC
CGCCCCCTGCCGCCACCGCCGCCACCCCTGCCCGGCCACCCCTCTACCCAAGACCCCCGAGGCGGAAAGA
GGAAACACAAACCGCAGGCCCCCGTCTAGCCCCACAGCAGTCGCCCCCGCAGCAGCCCCCTCCCCAGGAAGAGG
AGGTGAAAGCCAAAAGGCAGAGGAAGTCCCAGGGAGTGAGAGCGAGGTCCTTCCCTAGGGCGGGTCTGGGCGTC
TGCACCTGGGGCCTAGGGAAGTACACGTGGGAAGCGCAGTGAGCCGGGGCGGGGCGGAATCCCCCGCTGCAGG
GACACCCACGCCCTTCTCTCCAGAAGCCGGGCAGGCAGAATCCGGCCAGACGACGGGGCTGAGCCATCAGGAGCT
CTTGGGAAAGCAAAGCAGGGAGACACCTTCAGAAGAAGCTTGCTGAGCTTCACCGCAGCTCCCACCACGCGGCG
CTTCAGTACGGCTGGATCCTCCGCAGGCGAGCGGAAGGCCCCAGGAGGAGCAGGCTGGTGGCACTCTCCTGACC
TCACGCTGCCAAGGTGCGCCCTCGACTCCCGATTTTCAATTTGCTGGCCAGGAAAATCGAAAGGGAAACACCCTCAA
TTAGGAAACATTCCAAGGGGAGAAAAAGCTGCAATTGCTCAACTGGCATTGCTGTAACCCGTTCCATTTAATTGG
TTTTTATTTCTTTTGATTTTCAAGCTCTGCTAAGCTTTGGGGTACCAACGTCATCTTCAGGTGACCTGAATCTTT
CCCTTAACCGTACAGTTTCTCGATGGAATTGTGTGATCAGAAGGTGGAATTCTAGTGATAGGCGACCTCAGACCC
GCATTCATGTTCTGTGTGCCTCTTCTATTGCACATACACTGATTTTTAGCATTGTCTATTCTATTTTTCTTTG
CCCATTGTACTTCCATATATCTTTTCATTAACCTTACTTGCTGCCTTTTTTTTTTTCTTGGTACACATTTAAATAAA
GTAATCCTTAACCTGTGCTGTAAAGTTCACCCTTGGCATGCTGTTCCAAGAACCTGGGTTTGAATCCCAATCGTT
GTGAAACATACTCAGTATTGATAAAACCTTTTTAATAAGTGATGCAGAGCAGCCAAGGATATGTTGACCCAGATG
TCAACCAGGCTATTTTTATACTTAAAAATGTCAGCAGAGCATAGGCAGAATAAAATGGTTTAAATACCCACAG
CAAATAGAGTAACTGACAAACCACAAAACTGAAACCCAGACCCACCAGAAAGACAAGTGCTTAGCAATGCCT
TGGTACCTGATCTTTTTTCAATTCAAATAATTGTCATAGGTTGTTT

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FIGURE 294

MEPEEEDELGSGRDVDSNSNADSEKQWVAGDGLLEEQEFSEKEANFTEGSLKLKIQTTKRAKKPPKNLENYICPPEI
KITIKQSGDQKVS RAGKNSKATKEEERSHSHKKLLTASDLAASDLKGFQFPQAYERPQKHSTLHYDTGLPQDFTGD
TLKPKHQKSSSQNHMDWSTNSDSGPVTQNCFISPESGREASTSKIPALEPVASFQAKQGGKSAGNTWSQLSN
NNKDLLLGGVAPSPSSHSSPAPPSSSAECNGLQPLVDQDGGGTKEPPEPPTVGSKKKSSKKDVISQITIPNPDLDW
VKNAQKAFDNTEGKREGYSADSAQEASPARQNVSSASNPENDSSHVRITIPKAPSLDPTNHKRKKRQSIKAVVE
KIMPEKALASGITMSSEVVNRILSNSEGNKKDPRVPKLSKMIENESPSVGLTGGNAEKVIPGGVSKPRKPPMVM
TPPTCTDHSRSLPEIQHPKFAAKRRWTC SKPKPSTMLREAVMATSDKLMLEPPSAYPITPSSPLYTNTDSLTV
ITPVKKKRGRPKKQPLLTVETIHEGTSTSPVSPISREFPGTKKRKRNRNLAKLAQLVPGEDKPMSEMFKHKKVGK
LGVLDKKTIKTINKMKT LKRKNILNQILSCSSSVALKAKAPPETSPGAAAIESKLGKQINVSKRGTIYIGKKRGR
KPRAELPPPSEEPKTAIKHPRPVSSQPDVPAVPSNFQSLVASSPAAMHPLSTQLGGSNGNLS PASTETNFSELKT
MPNLQPI SALPTKTQKGIHSGTWKLSPPRLMANSPSHLCEIGSLKEITLSPVSESHSEETIPSDSGIGTDNNSTS
DQAEKSSSESRRRYSFDFCSLDNPEAIPSDTSTKNRHGHRQKHLIVDNFLAHESLKKPKHKRKRKSLQNRDDLQFL
ADLEELITKFQVFRISHRSYTFYHENPYPSIFRINF DHYYVPYI IQYDPLLYLRRTSDLKSKKKRGRPAKTNDTM
TKVPFLQGF SYPIPSGSYYAPYGMPTSMPPMNLGYYGQYPAPLYLSHTLGAASPFMRPTVPPPQFHTNSHIKMS
GAAKHKAKHGVHLQGPVSMGLGDMQPSLNPPKVGSASLSSGRLHKRKHKKHKKHKKEDRILGTHDNLSGLFAGKAT
GFSSHILSERLSSADKELPLVSEKNKHKEKQKHQHSEAGHKASKNNFEVDTLSTLSLSLSDAQHWTQAKEKGDLSSE
PVDSTKRYSGSGDGGSTRSENLDVFSEMNPSNDKWDSDVSGSKRRSYEGFGTYREKDIQAFKMNKRKERSYDS
SMSPGMPSPHLKVDQTAVH SKNEGSVPTMMTRKKPAAVDSVTIPPAPVLSLLAASAATSDAVGSSLKKRFRKREI
EAIQCEVRKMCNYTKILSTKKNLDHVNKILKAKRLQRQSKTGNNFVKRRGRPRKQPTQFDEDSRDQMPVLEKCI
DLPSKRGQKPSLSPLVLEPAASQDTIMATIEAVIHMAREAPLPPPPPPPLPPPPPPPLPPPPPLPKTPRGGKRK
HKPQAPAQPPQQSPPQQFLPQEEVKAKRQRKSRGSESEVLP

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FIGURE 295

GCCGCTTTTTTTTTTCTCATCTGCCATTTGTGTGTCTTAGATGGGTTTTAATTGCATGAATGTGGCTAATGTG
GTTCTCAGAAATTGGTCAGTATGGCCCGACATAGCTTCTGCTCTGTCTTGCTGACTCAATACCTTTAGGATTTGT
ATCAGAGTTTGGATACTAGTGTTAGTGGTGGTGTCACTACTTAATTGGGAGATAATGAAACCAATCATGGAT
GCTGTTTTTATTGGGCATGTCACTAAGAGAGGAGAAATAGCTGGGTTTTGGGTCTAATTATGAATAAGGACTGA
TTCAGAAAACGAGTTTATGGTAGGTAGACTAAAGTTTCACATCAGACTGTACCATTGTGATTTAGACCTATCTAA
AATTCAGAGCATATCATCTGGGCTACCTCAGGGTCACCACCCATGTATTGGGCTTAGTCAGGATTGACAGATACA
TTCTCAGCTGGCCTGTCATATAAAACATACTGTCATTGAGCTTAAGCTCCGCTTGTTCTGAGGTTTCACCTCCAT
GTGTTTCATTGGTGCAAAAAGTGGATCTCTTAGTTGGTCACTTAATTCTTTCTTTTTCAGAAAGATAGTATGTTCA
CTGGTATATTTGGTCACTCTTAGAACCTTCCTTCACATTGTTTTTTATGGGACCCATGAATGGTTAGCCITTTCTT
TTCTATTGTAGAAGGAAATAAATAGGAGTAAAAAGACCATTGTAGTAAATAAGTTCAAGGGGAACCTGGGACCAG
AAACCACTGTTATGTACAAAAAATGGCAAATTCAATAAACTCAAATTTAAAATAATTTTAAATTAACAGTTAT
GATAAATTTTATATTTTATACAAATAGATTGCTTAGAATGGTTCTCAAGAATTATAAGAGAAATGAACCTCACAGT
ACAAAAATTTTATAATTACTATACTTGTGTTTTGT TTGGGGGCTGGGAAATGTATTTTACATTGTAGCCAATCA
TTTTATATTTGTCAATTTAAATCTTATGGGTCTTTTTTTTTTATCTCTCTTGATGTCAGATTTTATAGTCTTTT
TAAATAAATCCATTTAATTAAACGTTAAAAAA

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FIGURE 296

MINFIFYTNRLLRMLKKNYKRNELTVQKFYNYTTCVLEGGWEMYFYIVANHFIFVNLNLMGLFFFISLDVRFYSL
FK

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FIGURE 297

GTGACTACCAGAAAATACTTTCAACATAAATGAACTCTCCAACCTATTAAACTTTTATATAGATAGAGGAAGAC
AGCTCTTTCGGGATAACCCACCTGATACCTGCAGAAACCCCCAGTCTGTTATTTTCAGTGATTTTCCATTTATCT
TTAATTCGCTATCCAAAATTAAATTATTGCAAGCTGATTCACATATAAAGATCCAGATGTCAGAAAAGAAAGCAT
ACATGCTTATGCATGAAACAATTCTGCAAAAAAAGGATGAATTTCTCCATCACCCAGATTTATACTTAGAGTCA
GACGAAGTCGCCTGGTTAAAGATGCTCTGCGTCAATTAAGTCAAGCTGAAGCTACTGACTTCTGCAAAGTATTAG
TGGTTGAATTTATTAATGAAATTTGTCCTGAGTCTGGAGGGGTTAGTTTCAGAGTTCTTCCACTGTATGTTTGAAG
AGATGACCAAGCCAGAATATGGAATGTTTCATGTATCCTGAAATGTGTTCTGTCATGTGGTTTCTGCCAAGCCTA
AACCTGAGAAGAAAAGATATTTCTCTTTGGAATGCTGTGTGGACTCTCCTTATTCAATTTAAATGTTGCTAACC
TTCCTTTCCCACTGGCTCTGTATAAAAAATTCTGGACCAAAAGCCATCATTGGAAGATTTAAAAGAAGCTCAGTC
CTCGGTTGGGGAAGAGTTTGAAGAAGTTCTAGATGATGCTGCTGATGACATTGGAGATGCGCTCTGCATACGCT
TTTCTATACACTGGGACCAAAATGATGTTGACTTAATTCCAAATGGGATCTCCATACCTGTGGACCAACCAACA
AGAGAGACTATGTTTCTAAGTATATTGATTACATTTTCAACGCTCTGTGAAAAGCAGTTTATGAGGAATTTTCTAGA
GAGGATTTTATAGAGTCTGTGAGAAGGAGATACTTAGACATTTCTACCCTGAAGAACTAATGACAGCAATCATTG
GAAATACTGATTATGACTGGAAACAGTTTGAACAGAATTCAAAGTATGAGCAAGGATACCAAAAATCAATCCTA
CTATACAGTTGTTTTGGAAGGCTTTCCACAAGCTAACCTTGGATGAAAAGAAAAAATTCCTCTTTTCTTACAG
GACGTGATAGGCTGCATGCAAGAGGCATACAGAAAATGGAATAGTATTTGCTGTCTGAAACTTTTCAGTGAAA
GAGATCACCCAACATCAATAACTTGTCTAATATTCTCTCCCTCCCTAAGTATTCTACAATGGAAAGAATGGAGG
AAGCACTCCAAGTAGCCATCAACAACAACAGAGGATTTGTCTCACCCATGCTCACACAGTCAATACCTCTGA
GAGACTCAGGGTGGGCTTTCTCACACTTGGATCCTTCTGTTCTTCTTACACCTAAATAATACAAGAGATTAATG
AATAGTGGTTAGAAGTAGTTGAGGGAGAGATTGGGGGAATGGGGAGATGATGATGATGGTCAAAGGGTGCAAAAT
CTCACACAAGACTGAGGCAGGAGAATAGGGTACAGAGATAGGGATCTAAGGATGACTTGGACACACTCCCTGGCA
CTGAAGAGTCTGAACACTGGCCTGTGATTGGTCCATTCCAGGACCTTCATTTGCATAAGGTATCAAACCACATCA
GCCTCTGATTGGCCATGGGCCAGACCTGCACTCTGGCCAATGATTGGTTTATTCCAGGACATTTCATTTGCATAAG
GAGTCAAACCACACCAGTCTTGGATTGGCTGTGAGCCAATTCACCTCAGTCTCTAATTGGCTGTGAGTCAGTCTT
TCATTTACATAGGGTGTAACCATCAAGAAACCTCTACAGGGTACTTAAGCCCCAGAAGATTTTGCTACCAGGGCT
CTTGAGCCACTTGCTCTAGCCCACTCCCAACCTGTGGAATGTACTTTTCACTTTTGTGCTTCACTGCCTTGTGCT
CCAATAAATCCACTCCTTCACCACCCAAAAA

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FIGURE 298

MQMSEKKAYMLMHETILQKKDEFPPSPRFILRVRRSRLVKDALRQLSQAEATDFCKVLVVEFINEICPESGGVSS
EFFHCMFEEMTKPEYGMFMYPEMCSCMWFPAPKPKPEKKRYFLFGMLCGLSLFNLNVANLPFPLALYKKLLDQKPS
LEDLKELSPRLGKSLQEVLDAAADDIGDALCIRFSIHWDQNDVDLIPNGISIPVDQTNKRDYVSKYIDYIFNVSV
KAVYEEFQRGFYRVCEKEILRHFYPEELMTAIGNTDYDWKQFEQNSKYEQGYQKSHPTIQLFWKAFHKLTLDK
KKFLFFLTGRDRLHARGIQKMEIVFRCPETFSERDHPTSITCHNILSLPKYSTMERMEEALQVAINNNRGFVSPM
LTQS

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FIGURE 299A

CTGGCGCGCGCACGCGCACGCGCACGCCCCACGCGCGGGCTTCCCCGCTCCCCGGTGCTGAGGAGAGAGCGATCC
GAGGGACTGCGCCGCCCGGACGGCCTGCAGAGCGCTGCCATCATGAGTGAAATTCGTAAGGACACCTTGAAGGCC
ATTCTGTTGGAGTTAGAATGTCATTTTACATGGAATTTACTTAAGGAAGACATTGATCTGTTGAGGTAGAAGAT
ACAATTGGGCAACAGCTTGAATTTCTTACCACAAAATCTAGACTTGCTCTTTATAACCTATTGGCCTATGTGAAA
CACCTAAAAGGCCAAAAATAAAGACGCCCTTGAGTGCTTGGAACAAGCAGAAGAAATAATCCAGCAAGAACACTCA
GACAAAGAAGAAGTACGAAGCCTGGTCACCTTGGGGAAACTATGCCTGGGTGTATTATCACATGGACCAGCTTGAA
GAAGCTCAGAAGTATACAGGTAAGATAGGGAATGTCTGTAAGAAATTGTCCAGTCCTTCTAACTACAAGTTGGAG
TGTCCTGAGACTGACTGTGAGAAAGGCTGGGCACTCTTGAAATTTGGAGGAAAGTATTATCAAAGGCTAAAGCG
GCTTTTGAGAAGGCTCTGGAAGTGGAGCCTGACAAATCCAGAATTTAACATCGGCTATGCTATCACAGTGTATCGG
CTGGATGATTCTGATAGAGAAGGGTCTGTAAAGAGCTTTTCTCTGGGGCCTTTGAGAAAGGCTGTTACCCTGAAC
CCAGATAACAGCTATATTAAGGTTTTTCTGGCACTGAAGCTTCAAGATGTACATGCAGAAGCTGAAGGGGAAAAG
TATATTGAAGAAATCCTGGACCAAATATCATCCAGCCTTACGTCTTCGTTATGCAGCCAAGTTCTATAGGAGA
AAAAATTCCTGGAACAAAGCTCTCGAAGCTTTTAAAAAAGGCCCTTGAGGTTGACACCAACTTCTTCTTCTGCT
CACCAGATGGGACTTTGCTACAGGGCACAAATGATCCAAATCAAGAAGGCCACACACAACAGACCTAAAGGAAAAG
GATAAACTAAAGGTTGATGAGCTGATTTTCATCTGCTATATTTTCAATTTCAAAGCAGCCATGGAACGAGACTCTATG
TTTGCAATTTGCCTACACAGACCTGGCCAACATGTATGCTGAAGGAGGCCAGTATAGCAATGCTGAGGACATTTTC
CGGAAAGCTCTTCGCTGAGAGAACATAACCGATGATCACAACATCAGATCCATTACCACTATGGCCGCTTTTCAG
GAATTTACCCGTAAATCAGAAAATACTGCCATCCATCATTATTTAGAAGCCTTAAAGGTCAAAGACAGATCACCC
CTTCGCACCAAAGTACAAAGTGCTCTGAAGAAATTGTCTACCAAGAGACTTTGTACAATGCTTTAGATGTGCAG
AGTTTAAAGTGCCCTAGGGTTTGTGTTACAAGCTGGAAGGAGAAAAGAGGCAAGCTGCTGAGTACTATGAGAAGGCA
CAAAAGATAGATCCAGAAAATGCAGAATTCCTGACTGCTCTCTGTGAGCTCCGACTTTCCATTAAATACATACT
CTAGGAAATTAGCTCTAAGTTTTTCCCTTCATTTTGGGTTCTCTGTTTGTGTTTTTTTTTATTATTTAATCCCT
TGTTTTATTATAGAGCTAATATTTATTGAATAGTTATGTGTACCAAGCATTGTGCTAAATACTTTATATGCATTA
TGATGAATCTTGTCGGGTTTTCTTTCTTTTTTTCTTTTTAATTAAATACTATAATCCATTGAGAAAATAGCAATA
TTCTAGCTATTGTAACCTTCTAAAAATGGTATGGCCATTAGATCTGTGCTTTTTATCTCTGCTCTTTGAATTTCTC
ATATTATATAGTAAATATATTTCTACGTAAACCTTTGATACCTAGATCAGGAATACTCTTCCAGGAGTACAAAAT
TACATTATTGATAGTTAAGCTCTTAATTGTGTAGCTTGCAAAAGACAGCACTTTTGTAGTTACAGATGTTTTGACT
TTGATGAGGATATTTAGCTATCAATCTAATAGTCACCTAAATATCTTTTTTGTGGAAAAAAGTTTATAATAAA
AAAGTTTGTCTCTCTAGTGACTTCAATAAAGAAAAAACTAGAAGAGGAGAAAAAAGGATTTCTCAAATTTTAA
TATGTAACCTCAGGGATTCAATCCCCAAATGTTTATTAAGTAGCTAGAAATAATTATGTGAAAAAAATGAATAA
TGGAATAATAGTGAGTCTCAAAATGTTTTTTTTTAATAAATCTGCAATGAATCTAGATGCAATTAATTTTATTC
CTTCCAATAAATAATACAAATATTTTAGGTTAAAAATTTAGATATAAAGCAGCCATTGGGAAATTGGGAGAAA
TGATAAACAAATGAAAAAGAAGATGTCCCTAACCTACACCCATAGATTACCAAGGTTTCAGTGTACTAGTTTTG
AATCTGTTCTGAATGGAGTTTTTATACCCTCAATTTCTGGCCTTTGGCTATTTTAGCATTTCAAAGTGACTTCTA
TGAAGCTTTTTTTTTTAATGTGAAATTTTCAAGATGTTGTTTTTTCATGTAGATACTCCAGGAAGAGTTAAGCAC
TGCTTTTCAGTTTTAATATCCACCTTGAGGGGTCGCTGCTTGAGGGCTCTTATCCAGGGGACTTTTTAATTCGGA
TGTTACTTAATGTGGCTTCTCTAATGTAGTTTCTTTGATTACCGACTACACAATTATGTACCATCACAGTATTAG
TGGAAGAAGTACCATGTGATTTAATCTCCATTCCCTCAATGTAACCTTTAAATTTATTATGTATGTGTATGTGTT
TTACTTTTTGTTTTTTATCATCTTTAAATTTCTATTATGGTTTGATTATTATAAAAAATAATGAATTTCTCACTGT
AAATTTCAAAAAAAATAATACAAAAGTATGTGAATTTAAAAATGAGAGCAGTCCCCTCACCTACACAGTTCCA
CACCCTCAAGGTAACTTATACTTATAATTTGATATGTAACTTCCAGATCTTTTTTCTATGCGTAATCAGACA
TACATATATACTGCAGTGTATCTCACGTATTAATTTTAAAAATCTTTTGTTTTACTTAATTTCTGTTTTTATTAT
TATTATTATTTGTTTGATCTATTAAGGAAGAACAAGGAAGGGAATGATCTTTACTCAAGAATTTCAAGAAAGTCA
GCACTGAAGTCCTGACCTATCAGTAGACACATTTGTCCCTTTCAGATATTTTAGGATATTCTAGCAAAGCAGGCC
ATTTCTCCACCTGAAAGTACATAACTTCTATCACTTGCCACATAATTAAGAAGTCACTTAAGCGGTTACTC
AGACAGTTAATCATAGAAAAGATTATTTGCTTCATCAGTTTCATAGAAAAGATTATTTGCTTCATCAGTTAACTTG
TTTTTATAAATCAGGGCCTGTGTTTCATACAGAAAGGGCCTGAGATTTCTGCACCTTTAAACAAGCTCCTCCTAG
GTGAGGATGCTGTGGCTGTTCTAATTACATTTTGAGTAGTAAGGTCTACAGCATTGTTCTCAAACCTTGCTACG

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FIGURE 299B

TATTGGAATCACCTAAAAAGTTAAAACAAAACATGGATGTCTGGGTCCCGCCCCATAGAGAATGACTTAATTGGC
ATGGGGTGCAGTCCAGGCATCATGATTTTTAGATTTCACAGTTGGAACCTGTGCAGCAAAGTTGGGAGCTACTG
ATGGACATGTGAAAAGTAAGTATAAATGGAATAAAATTAATTAGGCTAATAGGCTTAACCCAGGAAATCCTAAGT
TCCTTGAATATCCAGTTTGCATTTGGGACTCCTCATCATATACTTGGTATATAATACTCTAATAAAAGCTGCCTG
AGTTGA

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FIGURE 300

MSEIRKDTLKAILLELECHFTWNLLKEDIDLFEVEDTIGQOLEFLTTSRLALYNLLAYVKHLKGQNKDALECLE
QAEEIIQQEHSDKEEVRLVTWGNyawvyyHMDQLEEAQKYTGKIGNVCKKLSSPSNYKLECPETDCEKGWALLK
FGGKYYQKAKAAFEKALEVEPDNPEFNIGYAITVYRLDDSDREGSVKSFSLGPLRKAVTLNPDNSYIKVFLALKL
QDVHAEAEGEKYIEEILDQISSQPYVLRYAAKFYRRKNSWNKALELLKKALEVTPTSSFLHHQMGLCYRAQMIQI
KKATHNRPKGKDKLVDELISSAIFHFKAAMERDSMFAYTDLANMYAEGGQYSNAEDIFRKALRLENITDDHK
HQIHYHYGRFQEFHRKSENTAIHHYLEALKVKDRSPLRTKLTSAKKLSTKRLCHNALDVQSLSALGFVYKLEGE
KRQAAEYYEKAQKIDPENAEFLTALCELRLSI

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FIGURE 301

CGGCTGAGAGGCAGCGAACTCATCTTTGCCAGTACAGGAGCTTGTGCCGTGGCCACAGCCACAGCCACAGCC
ATGGGCTGGGACCTGACGGTGAAGATGCTGGCGGGCAACGAATTCCAGGTGTCCCTGAGCAGCTCCATGTCGGTG
TCAGAGCTGAAGGCGCAGATCACCCAGAAGATTGGCGTGCACGCCTTCCAGCAGCGTCTGGCTGTCCACCCGAGC
GGTGTGGCGCTGCAGGACAGGGTCCCCCTTGCCAGCCAGGGCCTGGGCCCTGGCAGCACGGTCCTGCTGGTGGTG
GACAAATGCGACGAACCTCTGAGCATCCTGGTGAGGAATAACAAGGGCCGCAGCAGCACCTACGAGGTCCGGCTG
ACGCAGACCGTGGCCACCTGAAGCAGCAAGTGAGCGGGCTGGAGGGTGTGCAGGACGACCTGTTCTGGCTGACC
TTCGAGGGGAAGCCCCTGGAGGACCAGCTCCCGCTGGGGGAGTACGGCCTCAAGCCCCTGAGCACCGTGTTCATG
AATCTGCGCCTGCGGGGAGGCGGCACAGAGCCTGGCGGGCGGAGCTTAAGGGCCTCCACCAGCATCCGAGCAGGAT
CAAGGGCCGGAAATAAAGGCTGTTGTAAGAGAAT

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FIGURE 302

MGWDLTVKMLAGNEFQVSLSSSMSVSELKAQITQKIGVHAFQQLAVHPSGVALQDRVPLASQGLGPGSTVLLVV
DKCDEPLSILVRNNKGRSSTYEVRLTQTV AHLKQQVSGLEGVQDDLFWLTFEGKPLEDQLPLGEYGLKPLSTVFM
NLRLRGGGTEPGGRS

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FIGURE 303A

CCGGGAGCCCCGGGCGCCCTGGAGTGAGGAGGACCGGGAGCTGGCTCTGGAGGCTGCGGAGGCGACGCCGGAGAGA
ACGAAGCCTCGGCTGGGAGCGGATCTTTTCAAGATGGTTTGGCTGCCTTGGAGATTGGAGATCTGATGCCACGA
TGAGGACTCACACACGGGGGGCTCCCAGTGTGTTTTTCATATATTTGCTTTGCTTTGTGTGTCAGCCTACATCACCG
ACGAGAACCAGAAAGTTATGATTCCCTTCACCAATGCCAACTACGACAGCCATCCCATGCTGTACTTCTCCAGGG
CAGAAGTGGCGGAGCTGCAGCTCAGGGCTGCCAGCTCGCACGAGCACATTGCAGCCCCGCCTCACGGAGGCTGTGC
ACACGATGCTGTCCAGCCCCCTTGAATACCTCCCTCCCTGGGATCCCAAGGACTACAGTGCCCCGCTGGAATGAAA
TTTTTGGAAACAACTTGGGTGCCTTGGCAATGTTCTGTGTGCTGTATCCTGAGAACATTGAAGCCCGAGACATGG
CCAAAGACTACATGGAGAGGATGGCAGCGCAGCCTAGTTGGTTGGTGAAAGATGCTCCTTGGGATGAGGTCCCGC
TTGCTCACTCCCTGGTTGGTTTTGCCACTGCTTATGACTTCTTGTACAACTACCTGAGCAAGACACAACAGGAGA
AGTTTCTTGAAGTGATTGCCAATGCCTCAGGGTATATGTATGAAACTTCATACAGGAGAGGATGGGGATTTCAAT
ACCTGCACAATCATCAGCCCACCAACTGTATGGCTTTGCTCAGGGAAGCCTAGTCCTGATGAATCAAGGATATC
TTCAAGAAGCCTACTTATGGACCAAACAAGTTCTGACCATCATGGAGAAATCTCTGGTCTTGCTCAGGGAGGTGA
CGGATGGCTCCCTCTATGAAGGAGTTGCGTATGGCAGCTACACCACTAGATCACTCTTCCAATACATGTTTCTCG
TCCAGAGGCACTTCAACATCAACCACTTTGGCCATCCGTGGCTTAAACAACACTTTGCATTTATGTATAGAACCA
TCCTGCCAGGGTTTTCAAAGGACTGTGGCTATTGCGGACTCAAATTACAACCTGGTTTTATGGTCCAGAAAGCCAAT
TAGTGTTCTTGATAAATTTGTCTATGCGTAATGGCAGTGGTAACTGGCTAGCTGACCAAATCAGAAGGAACCGTG
TGGTGGAAGGTCCAGGAACACCATCCAAAGGGCAGCGCTGGTGCCTCTGCACACAGAATTTCTCTGGTATGATG
GCAGCTTGAAATCGGTTCCCTCCAGACTTTGGCACCCCTACACTGCATTATTTTGAAGACTGGGGTGTCTGTA
CTTATGGAAGTGCACTACCTGCAGAAATCAATAGATCTTTCTTTCTTCAAGTCTGGAAAACCTGGGGGGACGTG
CAATATATGACATTGTCCACAGAAACAAATACAAAGATTGGATCAAAGGATGGAGAAATTTAATGCAGGGCATG
AACATCCTGATCAAACTCATTTACTTTTGCTCCCAATGGTGTGCCTTTTCACTTACTGAGGCTCTGTACGGGGCCAA
AGTACACCTTCTTCAACAATGTTTTGATGTTTTCCCCAGCTGTGTCAAAGAGCTGCTTTTCTCCCTGGGTGGGTG
AGGTACAGAAAGACTGCTCATCAAATGGTCTAAATACAAGCATGACCTGGCAGCTAGTTGTACGGGGAGGGTGG
TTGCAGCAGAGGAGAAAAATGGGGTGGTTTTTCATCGAGGAGAAGGTGTGGGAGCTTATAACCCCCAGCTCAACC
TGAAGAATGTTTCAAGGAATCTCATCTCTACATCCACAGCTGCTTCTCCTTGTAGACCAAATACACCTGGGAG
AGGAGAGTCCCTTGGAGACAGCAGCGAGCTTCTTCCATAATGTGGATGTTCCCTTTGAGGAGACTGTGGTAGATG
GTGTCCATGGGGCTTTCATCAGGCAGAGAGATGGTCTCTATAAAATGTACTGGATGGACGATACTGGCTACAGCG
AGAAAGCAACCTTTGCCTCAGTGACATATCCTCGGGGCTATCCCTACAACGGGACAACTATGTGAATGTCACCA
TGCACCTCCGAAGTCCCATCACCAGGGCAGCTTACCTCTTCATAGGGCCATCTATAGATGTTTACAGAGCTTCACTG
TCCACGGAGACTCTCAGCAACTGGATGTGTTTATAGCCACCAGCAAAACATGCCTACGCCACATACCTGTGGACAG
GTGAGGCCACAGGACAGTCTGCCCTTGCACAGGTCATTGCTGATCGTCACAAAATCTGTTTGACCGGAATTACAG
CCATCAAGAGCAGCATTGTCCCTGAGGTGAAGGACATGCTGCTATTGTGGAACAGAACTTGACAGCATTTTAAAC
CAGTGTCTTACAGCTGCTGGAGAAGCAGATACTGTCCCGAGTCCGGAACACAGCTAGCTTTAGGAAGACTGCTGAAC
GCCTGCTGAGATTTTCAGATAAGAGACAGACTGAGGAGGCCATTGACAGGATTTTGGCATATCACAGCAACAGC
AGCAGCAAAGCAAGTCAAAGAAAAACCGAAGGGCAGGCAAAACGCTATAAATTTGTGGATGCTGTCCCTGATATTT
TTGCACAGATTGAAGTCAATGAGAAAAAGATTAGACAGAAAGCTCAGATTTTGGCACAGAAAGAACTACCCATAG
ATGAAGATGAAGAAATGAAAGACCTTTTAGATTTTGCAGATGTAACATACGAGAAACATAAAAAATGGGGGCTTGA
TTAAAGGCCGGTTTGGACAGGCACGGATGGTGACAACTACACACAGCAGGGCCCCATCACTGTCTGCTTCCCTATA
CCAGGTTGTTCTGATTCTGAACATTGCTATTTTCTTTGTCATGTTGGCAATGCAACTGACTTATTTCCAGAGGG
CCCAGAGCCTACATGGCCAAAGATGTCCTTATGCAGTTCTTCTCATAGATAGCTGTATTTTATTATGGTTGTACT
CTTCTTGTTCCTCAATCACAGTGTTAGCACTGAAAGCTATAAATTACCTGGTCATTTTGTGATCACAAAGAGTCTATG
CAAAAAAATTTCTTTACCCAGATTATCAGATTTTTTCCCTCAGATTTCATTTTAAACAAATTAAGGGAAGA
TATTTTGACACAAGAAAGCAGGAACGTGGAGAAATGGAGCAGGAAAGAAATTATCAAAGCAATAGAAATAGCT
TGGTGGTCCATGGTGTTTTTTGAAGTATTTGGCAATTGCTAATTGAGCAGTCCATATAGTACTACTTTTAGAAGA
AACAAAAAGTCTATTTTTTAAAGTAATGTTTTTCTTATGAGAAAAAGGTTTAGATAGAATTGGGTTTTATTAAT
ATTAATTTAATGCTATTAGCAATTTCCATATACTATATTGTGGAAAAGACTGAAGAATACAATCTGAGAAATAT
AAAAAATTTTAAATGGTATACTCATGTTGAAAGATAAATGTTGCTAAGTCCTGGTATGATGGTGTGAGCTTCCCT
GGGGAAGTACTTCTTGAGTTATGTAACCAAGGATGTTTTACTACAGATCTGGATGGCTATTACAGATAACATGG

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FIGURE 303B

CAAAAAATGATAGCAGAAGATCATTAAAACTTAAAATATATTTTATTAGAAAACATTTATCTATGAATGAATAT
TTCCTTGATGCTGGTCTCTGCACACATATGCTTGGTTACTTGCATGCATTCATTGGTTGTTCAATAAGTGAGATG
ATTACAGATAATACTGTATTTTCCTTATATGGAAAACCGTTATAGACCCAATAACAACCTAAACCTTTCAAAAGAA
AATATTTTCTATTATGAATGTTGATTTTCATACCAAAGAAGATGGAGAGTCTAAAATTGGATATGATTCTTATG
TTTTTTTAATAGAAAACCTTCTTCAAGTTTATTTTCCTAAATAAACATCATAATTGTGAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 304

MRTHTRGAPSVFFIYLLCFVSAYITDENPEVMIPFTNANYDSHPMLYFSRAEVAELQLRAASSHEHIAARLTEAV
HTMLSSPLEYLPPWDPKDYSARWNEIFGNNLGALAMFCVLYPENIEARDMAKDYMERMAAQPSWLVKDAPWDEVP
LAHSLVGFATAYDFLYNYLSKTQKEKFLEVIANASGYMYETSYRRGWGFQYLHNHQPTNCMALLTGSLVLMNQGY
LQEAYLWTKQVLTIMEKSLVLLREVTDGSLYEGVAYGSYTTSLFQYMFLVQRHFNINHFHGPWLKQHFAMFMYRT
ILPGFQRTVAIADSNYNWFYGPESQLVFLDKFVMRNGSGNWLADQIRNRVVEGPGTPSKGQRWCTLHTEFLWYD
GSLKSVPPPDFGTPTLHYFEDWGVVITYGSALPAEINRSFLSFKSGKLGGRAIYDIVHRNKYKDWIKGWRNFNAGH
EHPDQNSFTFAPNGVPFITEALYGPKYTFNNVLMFSPAVSKSCFSPWVGQVTEDCSSKWSKYKHDLAASCQGRV
VAAEEKNGVVFIRGEGVGAYNPQLNLKNVQRNLILLHPQLLLLVDQIHLGEESPLETAASFFHNVDVPFEETVVD
GVHGAFIRQRDGLYKMYWMDDTGYSEKATFASVTYPRGYPYNGTNYVNVMTMHLRSPITRAAYLFIGPSIDVQSFT
VHGDSQQLDVF IATSKHAYATYLTWGEATGQSAFAQVIADRHKILFDRNSAIKSSIVPEVKDYAAIVEQNLQHFK
PVFQLEKQILSRVRNTASFRKTAERLLRFSDKRQTEEAIDRIFAISQQQQQSKSKKNRRAGKRYKFVDAVPDI
FAQIEVNEKKIRQKAQILAQKELPIDEDEEMKDLLDFADVTYEKHKNGGLIKGRFGQARMVTTTHSRAPSLSASY
TRLFLILNIAIFFVMLAMQLTYFQRAQSLHGQRCLYAVLLIDSCILLWLYSSCSQSQC

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FIGURE 305A

CGCTCGATCTTGGGACCCACCGCTGCCCTCAGCTCCGAGTCCAGGGCGAGTGCAGAGCACAGCGGGCGGAGGACC
CCGGGCGCGGGCGCGGACGGCACGCGGGGCATGAACCTGGAGGGCGGGCGCGGAGGCGGAGAGTTTCGGCATGAGC
GCGGTGAGCTGCGGCAACGGGAAGCTCCGCCAGTGGCTGATCGACCAGATCGACAGCGGCAAGTACCCCGGGCTG
GTGTGGGAGAACGAGGAGAAGAGCATCTTCCGCATCCCCTGGAAGCACGCGGGCAAGCAGGACTACAACCGCGAG
GAGGACGCCCGCTCTTCAAGGCTTGGGCACGTGTTTAAAGGAAAGTTCCGAGAAGGCATCGACAAGCCGGACCCT
CCCACCTGGAAGACGCGCCTGCGGTGCGCTTTGAACAAGAGCAATGACTTTGAGGAAGTGGTTGAGCGGAGCCAG
CTGGACATCTCAGACCCGTACAAAGTGTACAGGATGTTCCTGAGGGAGCCAAAAAAGGAGCCAAGCAGCTCACC
CTGGAGGACCCGAGATGTCCATGAGCCACCCCTACACCATGACAACGCCTTACCCTTCGCTCCCAGCCAGCAG
GTTCACAACTACATGATGCCACCCCTCGACCGAAGCTGGAGGGACTACGTCCCGGATCAGCCACACCCGGAAATC
CCGTACCAATGTCCCATGACGTTTGACCCCGCGGCCACCACTGGCAAGGCCAGCTTGTGAAAATGGTTGCCAG
GTGACAGGAACCTTTTATGCTTGTGCCACCTGAGTCCCAGGCTCCCGGAGTCCCCACAGAGCCAAGCATAAGG
TCTGCCGAAGCCTTGGCGTTCTCAGACTGCCGGCTGCACATCTGCCTGTACTACCGGGAATCCTCGTGAAGGAG
CTGACCACGTCCAGCCCCGAGGGCTGCCGGATCTCCATGGACATACGTATGACGCCAGCAACCTGGACCAGGTC
CTGTTCCCTTACCCAGAGGACAATGGCCACAGGAAAAACATTGAGAACCCTGCTGAGCCACCTGGAGAGGGGCGTG
GTCTCTGGATGGCCCCGACGGGCTCTATGCGAAAAGACTGTGCCAGAGCACGATCTACTGGGACGGGCCCTG
GCGCTGTGCAACGACCGGCCCAACAACTGGAGAGAGACCAGACCTGCAAGCTCTTTGACACACAGCAGTTCTTG
TCAGAGCTGCAAGCGTTTGCTCACCACGGCCGCTCCTGCCAAGATTCCAGGTGACTCTATGCTTTGGAGAGGAG
TTTCCAGACCTCAGAGGCAAGAAAGCTCATCACAGCTCACGTAGAACCCTCTGCTAGCCAGACAACCTATATTAT
TTTGCTCAACAAAACAGTGGACATTTCTTGAGGGGTACGATTTACCAGAACACATCAGCAATCCAGAAGATTAC
CACAGATCTATCCGCCATTCTCTATTCAAGAAATGAAAAATGTCAAGATGAGTGGTTTTCTTTTTCTTTTTTTT
TTTTTTTTTTTTTGATACGGAGATACGGGGTCTTGCTCTGTCTCCAGGCTGGAGTGCAGTGACACAATCTCAGCT
CACTGTGACCTCCGCCTCTGGGTTCAAGAGACTCTCCTGCCTCAGCCTCCCTGGTAGCTGGGATTACAGGTGTG
AGCCACTGCACCCACCCAAGACAAGTGATTTTCATGTAAATATTTGACTTTAGTGAAAGCGTCCAATTGACTGC
CCTCTTACTGTTTTGAGGAAGTCAAGAGTGGAGATTTTCAAGTTTCAAGCGGTTGAGGAGAATTGCGGCGAGACAAGCA
TGGAAGAAATCAGTGACATCTGATTGGCAGATGAGCTTATTTCAAAGGAAGGGTGGCTTTGCATTTTCTGTGTTT
TGTAAGTGTGATGATTAGGTCTTGCTGGAAGACAGAGAAAACCTTGCCCTTTCAGTATTGACACTGACTAGAGTGAT
GACTGCTTGTAGGTATGTCTGTGCCATTTCTCAGGGAAGTAAGATGTAAATTGAAGAAGCCTCACACGTAAAAGA
AATGTATTAATGTATGTAGGAGCTGCAGTTCTTGTGGAAGACACTTGCTGAGTGAAGGAAATGAATCTTTGACTG
AAGCCGTGCCTGTAGCCTTGGGGAGGCCCATCCCCACCTGCCAGCGGTTTCTGGTGTGGGTCCCTCTGCCCA
CCCTCCTTCCCATTTGGCTTTCTCTCCTTGCCCTTCTGGAAGCCAGTTAGTAACTTCTATTTTCTTGAGTCA
AAAAACATGAGCGCTACTCTTGATGGGACATTTTGTCTGTCTTACAATCTAGTAATGTCTAAGTAATGGTTAA
GTTTTCTTGTCTTCTGCATCTTTTGACCCTCATTTCTAGAGATGCTAAAATTCTTCGCATAAAGAAGAAGAAAT
TAAGGAACATAAAATCTTAATACTTGAAGTGTGGCCCTTCTGTCCAAGTACTTAACTATCTGTTCCCTTCTCTGT
GCCACGCTCCTCTGTTTGTGTTGGCTGTCCAGCGATCAGCCATGGCGACACTAAAGGAGGAGGAGCCGGGGACTCC
CAGGCTGGAGAGCACTGCCAGGACCCACCACTGGAAGCAGGATGGAGCTGACTACGGAAGTGCACACTCAGTGGG
CTGTTTCTGCTTATTTTCTGTTCTATGCTTCTCGTGCCAATTATAGTTTGACAGGGCCTTAAATTAAGTGG
CTTTTCCAAATGCTTCTATTTATAGAAATCCCAAAGACCTCCACTTGCTTAAGTATACCTATCACTTACATTTT
TGTTGGTTTTGAGAAAGTACAGCAGTAGACTGGGGCGTCACCTCCAGGCCGTTTCTCATACTACAGGATATTTACT
ATTACTCCCAGGATTCAGCAGAAGATTGCGTTAGCTCTCAAATGTGTGTTCTTGCTTTTCTAATGGATATTTTAA
ATTCATTCAACAAGCACCTAGTAAGTGCCGTGTATCCCTACATTACACAGTTCAGCCTTTATCAAGCTTAGTG
AGCAGTGAGCACTGAAACATTATTTTTTAATGTTTAAAAAGTTTCTAATATTAAGTCAAGATATTAATACAATT
AATATTAATATTAACACAGAAAAAGACAAACAGTAGAGAACAGCAAAAAAATAAAAAAGGATCTCCTTTTTTCCCA
GCCCAAATTTCTCTCTTAAAAGTGTCCACAAGAAGGGGTGTTTATTCTTCCAACACATTTCACTTTTCTGTAAA
TATACATAAACTTAAAAAGAAAACCTCATGGAGTCATCTTGCACACACTTTTCATGCAGTGCTCTTTGTAGCTAA
ACAGTGAAGATTTACCTCGTTCTGCTCAGAGGCCTTGCTGTGGAGCTCCACTGCCATGTACCCAGTAGGGTTTGA
CATTTCAATTAGCCATGCAACATGGATATGTATTGGGCAGCAGACTGTGTTTCGTGAAGTGCAGTGATGTATACAT
CTTATAGATGCAAAGTATTTTGGGGTATATTATCCTAAGGGAAGATAAAGATGATATTAAGAACTGCTGTTTAC

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FIGURE 305B

GGGGCCCTTACCTGTGACCCTCTTTGCTGAAGAATATTTAACCCACACAGCACTTCAAAGAAGCTGTCTTGGA
GTCTGTCTCAGGAGCACCCTGTCTTCTTAATTCTCCAAGCGGATGCTCCATTTCAATTGCTTTGTGACTTCTTCT
TCTTTGTTTTTTTAAATATTATGCTGCTTTAACAGTGGAGCTGAATTTTCTGGAAAATGCTTCTTGGCTGGGGCC
ACTACCTCCTTTCCTATCTTTACATCTATGTGTATGTTGACTTTTTAAATTTCTGAGTGATCCAGGGTATGACCT
AGGGAATGAACTAGCTATGGAAATAACTCAGGGTTAGGAATCCTAGCACTTGTCTCAGGACTCTGAAAAGGAACG
GCTTCCTCATTTCCTTGCTTGATAAAGTGAATTGGCAAAGTAGAATTTAGTTTGTACTCAGTGGACAGTGCTGT
TGAAGATTTGAGGACTTGTTAAAGAGCACTGGGTCAATATGGAAAAAATGTATGTGTCTCCCCAGGTGCATTTTCT
TGGTTTATGTCTTGTTCTTGAGATTTTGTATATTTAGGAAAACCTCAAGCAGTAATTAATATCTCCTGGAACACT
ATAGAGAACCAAGTGACCGACTCATTTACAACCTGAAACCTAGGAAGCCCCTGAGTCCTGAGCGAAAACAGGAGAG
TTAGTCGCCCTACAGAAAACCCAGCTAGACTATTGGGTATGAACTAAAAAGAGACTGTGCCATGGTGAGAAAAAT
GTAAAAATCCTACAGTGGAATGAGCAGCCCTTACAGTGTTGTTACCACCAAGGGCAGGTAGGTATTAGTGTGTTGAA
AAAGCTGGTCTTTGAGCGAGGGCATAAATACAGCTAGCCCCAGGGGTGGAACAACCTGTGGGAGTCTTGGGTACTC
GCACCTCTTGCTTTGTTGATGCTCCGCCAGGAAGGCCACTTGTGTGTGCGTGTGAGTTACTTTTTTAGTAACAA
TTCAGATCCAGTGTAACCTTCCGTTTATTGCTCTCCAGTCACATGCCCCACTTCCCCACAGGTGAAAGTTTTTC
TGAAGTGTGTTGGGATTGGTTAAGGTCTTTATTTGTATTACGTATCTCCCAAGTCCTCTGTGGCCAGCTGCATCTG
TCTGAATGGTGCGTGAAGGCTCTCAGACCTTACACACCATTTTGTAAGTTATGTTTTACATGCCCCGTTTTTGAG
ACTGATCTCGATGCAGGTGGATCTCCTTGAGATCCTGATAGCCTGTTACAGGAATGAAGTAAAGGTCAGTTTTTT
TTGTATTGATTTTACAGCTTTGAGGAACATGCATAAGAAATGTAGCTGAAGTAGAGGGGACGTGAGAGAAGGGC
CAGGCCGGCAGGCCAACCTCCTCCAATGGAAATTCCCGTGTGCTTCAAACCTGAGACAGATGGGACTTAACAGG
CAATGGGGTCCACTTCCCCCTCTTCAGCATCCCCGTACC

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FIGURE 306

MNLEGGGRGGEFGMSAVSCGNGKLRQWLIDQIDSGKYPGLVWENEEKSIFRIPWKHAGKQDYNREEDAALFKAWA
LFKGFREGIDKPDPPPTWKTRLRCALNKSNDFEELVERSQLDISDPYKVYRIVPEGAKKGAKQLTEDPQMMSH
PYTMTTPYPSLPAQQVHNMMPLDRSWRDYVPDQPHPEIPYQCPMTFGPRGHHWQGPACENGCVTGTFTYACAP
PESQAPGVPTEPSIRSAEALAFSDCRLHICLYYREILVKELTTSSPEGCRISHGHTYDASNLDQVLFYPEDNGH
RKNIENLLSHLERGVVLWMAPDGLYAKRLCQSTIYWDGPLALCNDRPNKLERDQTCKLFDTQQFLSELQAFHHG
RSLPRFQVTLCFGEEFPDPQRQRKLITAHVEPLLARQLYYFAQQNSGHFLRGYDLPEHISNPEDYHRSIRHSSIQ
E

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FIGURE 307

GGCCACGAAGGCCGGCCCCACCCCGGGACCCCGCCGTCCCCGGGCCGGCCGGCCGGTGGGCACG**ATG**AGCCAG
GTGCTGGGGAAAGCCGCAGCCGCAGGACGAGGACGACGCGGAGGAGGAGGAGGAGGAGGATGAGCTGGTGGGGCTA
GCGGACTACGGAGACGGGCCCCGACTCCTCCGACGCCGATCCGGACAGCGGCACAGAGGAGGGAGTTCTGGACTTC
AGTGACCCCTTCAGCACTGAAGTGAAGCCGAGAATCCTGCTCATGGGCCTGAGGAGAAGCGGCAAGTCGTCTATT
CAGAAAGTTGTCTTTCACAAAATGTCTCCCAACGAACTCTGTTCTTGAGAGCACTAATAAGATATGCCGGGAA
GATGTTTCCAACAGCTCCTTTGTCAATTTTCAGATTTGGGACTTCCCAGGACAGATTGACTTTTTTGACCCTACA
TTTGACTATGAGATGATCTTCCGGGGAACAGGAGCACTGATATTTGTCATTGACTCACAGGATGATTACATGGAA
GCCCTGGCCAGGCTCCACCTCACGGTGACCAGGGCCTACAAAGTGAATACTGACATCAACTTCGAGGTGTTTATT
CATAAAGTGGATGGTCTGTGATGACCACAAAATTGAAACCCAAAGAGATATTCACCAGAGGGCAAACGATGAC
CTTGACAGATGCTGGATTAGAAAAAATTCACCTCAGCTTTTATCTGACAAGCATATATGATCATTCAATATTTGAA
GCTTTTAGCAAAGTTGTTTCAGAAACTGATTCCACAACCTCCCAACTCTGGAGAATTTGCTGAACATCTTTATCTCA
AATTCTGGAATTGAAAAGGCATTTCTATTTGATGTGGTCAGTAAAATTTATATTGCAACTGATAGTACTCCGGTG
GATATGCAAACCTATGAGCTCTGCTGTGATATGATAGATGTGGTTATTGACATCTCTTGATTTATGGTCTCAAA
GAAGATGGAGCAGGAACCCCTATGACAAGGAATCCACAGCCATCATAAAGCTTAATAATACAACCGTGCTTTAT
TTAAAAGAGGTGACAAAGTTCCTGGCTCTCGTTTGCTTTGTCAGAGAGGAAAGCTTTGAAAGAAAAGGGCTAATT
GACTATAATTTTCATTGCTTCCGGAAGGCCATTCA TGAAGTTTTTGAGGTGAGAATGAAAGTAGTAAATCTCGA
AAGGTTTCAGAAATCGGCTGCAGAAGAAAAAGAGAGCCACCCCTAATGGGACCCCTAGAGTGCTGCTG**TAG**GTGAGG
TTTCAGGAATGTCTTTTGAAATCAGACCTTATCCATGAGGCTGCTGCGCCATGTTGCACTAAAGGAAGAGGAAGA
AGGAGATTGGGACACATACCATTGATTTGTTGTTAAAAAATAAATTCCTGCAACCCTCTTGATCTTCTCTTT
TATAATTAAAGTCAGCACTTGAAGCGG

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FIGURE 308

MSQVLGKPPQDDEDAEEEEEEDELVGLADYGDGPDSSDADPD SGTEEGVLD FSDPFSTE VKPRILLMGLRRSGK
SSIQKVVFHKMSPNETLFLESTNKICREDVSNS SFVNFQIWDFPGQIDFFDPTFDYEMIFRGTGALIFVIDSQDD
YMEALARLHLTVTRAYKVNTDINF EVFIHKVDGLSDDHKIETQRDIHQRANDDLADAGLEKIHLSFYLT SIYDHS
IFEAFSKVVQKLIPQLPTLENLLNIFISNSGIEKAFLFDVVSKIYIATDSTPVDMQTYELCCDMIDVVIDISCIY
GLKEDGAGTPYDKESTAI IKLNNTTVLYLKEVTKFLALVCFVREESFERKGLIDYNFHC FRKAIHEVFEVRMKVV
KSRKVQNRLQKKKRATPNGTPRVLL

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FIGURE 309

CCCGCGTG CATACGGTTGCCGGC **ATG**GCACATTACAAC TTCAAGAAAATTACGGTGGTGCCGTCCGCCAAGGACT
TCATAGACCTCACGTTGTCGAAGACTCAACGAAAGACTCCAACCGTTATTTCATAAACATTACCAAATACATCGCA
TTAGACATTTTACATGAGAAAAGTCAAATTTACTCAACAGAATTACCATGATAGACTTTCACAAATTCTAACAG
ATTTCCCCAAATTGGATGATATTTCATCCGTTCTATGCTGATTTGATGAATATTCTCTACGACAAGGATCATTACA
AGTTGGCTCTGGGGCAAATAAATATTGCCAAAAATTTAGTGGACAATGTTGCTAAAAGATTATGTGCGACTGATGA
AGTATGGCGACTCTCTCTACCGCTGCAAACAGCTGAAGCGTGCGGCCCTGGGACGGATGTGCACAGTGATCAAGA
GGCAGAAGCAGAGTTTGGAGTATTTGGAGCAAGTGCGTCAGCATTTATCCCGTTTGCCAACCATTGATCCGAATA
CCAGGACCCTGCTTTTGTGTGGGTACCCAAATGTTGGGAAGTCCAGCTTCATCAACAAGGTGACGAGAGCAGACG
TGGATGTCCAGCCCTATGCGTTTCAACAACCAAGTCTCTGTTTGTGGGCACATGGATTATAAGTATCTACGTTGGC
AGGTTGTAGACACTCCTGGGATCCTGGACCACCCTCTGGAGGATAGGAACACCATCGAGATGCAGGCCATCACTG
CCCTGGCCCCACCTCCGTGCTGCGGTCTGTATGTGATGGATTTGTCTGAGCAGTGTTGGGCATGGGCTGAGGGAGC
AGCTAGAACTCTTCCAGAACATCAGACCTCTCTTCATCAACAAGCCTCTCATAGTTGTAGCCAACAAATGTGATG
TGAAGAGAATAGCTGAAC TTTCTGAAGATGATCAGAAAATATTTACAGATTTGCAGTCTGAAGGATTCCTGTAA
TAGAGACCAGCACCTGACTGAGGAAGGTGTTATTAAAGTTAAAACAGAGGCTTGCGATAGGCTTTTGGCTCATC
GAGTGGAAACCAAAATGAAGGGAAAATAAAGTGAATGAGGTGCTGAATAGACTGCACCTGGCTATCCCAACCAGGA
GGGACGATAAGGAGAGGCCCTTTTCATCCCTGAAGGAGTGGTGGCTCGCAGGAAGAGGATGGAAACTGAGGAGT
CCAGGAAGAAGAGGGAACGAGATCTTGAGCTGGAAATGGGAGATGATTATATTTGGATCTTCAGAAGTACTGGG
ATTTAATGAATTTGTCTGAAAAACATGATAAGATACCAGAAATCTGGGAAGGCCATAATATAGCTGATTATATTG
ATCCAGCCATCATGAAGAAATTGGAAGAATTAGAAAAAGAAGAAGAGCTGAGAACAGCTGCTGGAGAGTATGACA
GTGTATCTGAGAGTGAAGACGAAGAGATGCTGGAAATCCGACAGCTGGCAAAGCAAATTCGAGAGAAAAAGAAGT
TGAAAATTCTGGAGTCCAAAGAAAAAGAATACACAGGGACCCAGGATGCCGCGAACTGCTAAGAAGGTTTCAGAGGA
CAGTTTTGGAGAAGGAGATGCGTAGTCTTGGTGTTGACATGGACGATAAAGACGATGCCCATTACGCAGTCCAGG
CAAGAAGATCCCGGAGCATCACTAGGAAAAGAAAGCGGGAAGACTCTGCTCCCCCGTCTCTGTGGCCCCGAGTG
GGAGTTGCTCTCGAACTCCACGTGACGTTTCTGGTCTTAGGGATGTCAAGATGGTGAAGAAAAGCCAAGACTATGA
AGAATGCTCAGAAGAAGATGAATCGGTTGGGGAAGAAAGGGGAGGCGGATAGACACGTGTTTGATATGAAGCCCA
AGCACTTGCTGTCTGGGAAGAGGAAAGCTGGTAAAAAGGACAGGAGAT **TAG**TATCCGTTTGGTTGGCGTGGCTTCG
CTAGAGTGTTGCTGTTTATTTCCCTGGTTTGGTACAGTATGGTTTTCATGAAATTGGAGCTCTGTACAACTGAAAA
AGACAAAATAAGTAAAGCACTTGTTGCTTTGCTGAAAACATATGGTTAACCTATATAGGTGTGGGAAATTTTTGT
CACTGCATAATATTACAAATATTTTGAGTAGACAGTGTTCACATTTAATGGAGTATCAGTTGCTTCAGATTTT
CAGAACTGGGAAGATTTACTGGTGTAACTGGGTTGTTTTGATGGAGAAAAACCTTATTTCTTTTGTAAAGAGCT
GGGAGCAAACACGTTTATGAGTGTGTCGGAATCCCGTGCTTAAATACGCTCTTAAATTATTTCTAGTCTTATT
TTACAATGTCTCATTGTAGTCTGTCTTCAACTATTTTATCCAAAATAAACCTCCAGAAGAACTAAAAAAAAAA
AAAAAAAAAAAAAA

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FIGURE 310

MAHYNFKKITVVP
SAKDFIDLTLSKTQ
RKTPTVIHKHYQI
HRIRHFYMRKVKF
TQQNYHDRLSQIL
TDFPKLDDI
HPFYADLMNILEY
DKDHYKLALGQIN
IAKNLVDNVAKDY
VRLMKYGDSL
YRCKQLKRAALGR
MCTVIKRQKQSLEY
LEQVRQHLSRLPT
IDPNTRTLLLCGY
PNVGKSSFINKVTR
ADVDVQPYAFTTK
SLFVGHMDYKYLR
WQVVDTPGI
LDHPLEDRNTIEM
QAITALAHRAAVLY
VMDLSEQCGHGLR
EQLELFQNI
RPLFINKPLIVVANK
CDVKRIAELS
EDDQKIFTDLQSE
GFPVIETSTL
TEEGVIKVKTEAC
DRLLAHRVETKM
KGNKVNEVLNRL
HLAIPTRRDDKER
PP
FIPEGVVARRRK
METEESRKKRERD
LELEMGGDYI
LDLQKYWDL
MNLSEKHDKI
PEIWEGHNI
ADYIDPAIMKKL
EELEKEEELRTA
AGEYDSVSESE
DEEMLEIRQLAK
QIREKKKLIK
LESKEKNTQ
GPRMPRTAKKV
QRTVLEKEMR
SLGVDMDKDDA
HYAVQARRSR
SITRKRKREDS
APPSSVARSG
SCSRTPRDV
SGLRDVKM
VKKAKTMKNA
QKKMN
RLGKKGEADRH
VFDMPKPHLL
SGKRKAGKKDRR

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FIGURE 311A

TCCTGGCATCAGTTACTGTGTTGACTCACTCAGTGTGGGATCACTCACTTTCCCCCTACAGGACTCAGATCTGG
GAGGCAATTACCTTCGGAGAAAAACGAATAGGAAAACTGAAGTGTTACTTTTTTTAAAGCTGCTGAAGTTTGGT
GGTTTCTCATTGTTTTTAAGCCTACTGGAGCAATAAAGTTTGAAGAACTTTTACCAGGTTTTTTTTATCGCTGCC
TTGATATACACTTTTCAAAATGCTTTGGTGGGAAGAAGTAGAGGACTGTTATGAAAGAGAAGATGTTCAAAAGAA
AACATTACAAAATGGGTAAATGCACAATTTTCTAAGTTTGGGAAGCAGCATATTGAGAACCCTCTTCAGTGACCT
ACAGGATGGGAGGCGCTCCTAGACCTCCTCGAAGGCCTGACAGGGCAAAAACCTGCCAAAAGAAAAAGGATCCAC
AAGAGTTCATGCCCTGAACAATGTCAACAAGGCACCTGCGGGTTTTGCGAACAATAATGTTGATTTAGTGAATAT
TGGAAGTACTGACATCGTAGATGGAATCATAACTGACTCTTGGTTTTGATTGGAATATAATCCTCCACTGGCA
GGTCAAAAATGTAATGAAAAATATCATGGCTGGATTGCAACAAACCAACAGTGAAAAGATTCTCCTGAGCTGGGT
CCGACAATCAACTCGTAATTATCCACAGGTTAATGTAATCAACTTCACCACCAGCTGGTCTGATGGCCTGGCTTT
GAATGCTCTCATCCATAGTCATAGGCCAGACCTATTTGACTGGAATAGTGTGGTTTGCCAGCAGTCAGCCACACA
ACGACTGGAACATGCATTCAACATCGCCAGATATCAATTAGGCATAGAGAACTACTCGATCCTGAAGATGTTGA
TACCACCTATCCAGATAAGAAGTCCATCTTAATGTACATCACATCACTCTTCCAAGTTTGCCTCAACAAGTGAG
CATTGAAGCCATCCAGGAAGTGGAATGTTGCCAAGGCCACCTAAAGTGACTAAAGAAGAACATTTTCAGTTACA
TCATCAAATGCACTATTCTCAACAGATCAGGTCAGTCTAGCACAGGGATATGAGAGAAGTTCTTCCCCTAAGCC
TCGATTCAAGAGCTATGCCTACACACAGGCTGCTTATGTCACCACCTCTGACCCTACACGGAGCCCATTTCTTC
ACAGCATTTGGAAGCTCCTGAAGACAAGTCATTTGGCAGTTTCATTGATGGAGAGTGAAGTAAACCTGGACCGTTA
TCAAACAGCTTTAGAAGAAGTATTATCGTGGCTTCTTTCTGCTGAGGACACATTGCAAGCACAAGGAGAGATTT
TAATGATGTGGAAGTGGTGAAAGACCAGTTTCATACTCATGAGGGGTACATGATGGATTTGACAGCCCATCAGGG
CCGGGTTGGTAATATTCTACAATTGGGAAGTAAGCTGATTGGAACAGGAAAATTATCAGAAGATGAAGAACTGA
AGTACAAGAGCAGATGAATCTCTAAATTCAAGATGGGAATGCCTCAGGGTAGCTAGCATGGAAAAACAAAGCAA
TTTACATAGAGTTTAAATGGATCTCCAGAATCAGAACTGAAAGAGTTGAATGACTGGCTAACAAAAACAGAAGA
AAGAACAAGGAAAATGGAGGAAGAGCCTCTTGGACCTGATCTTGAAGACCTAAAACGCCAAGTACAACAACATAA
GGTGCTTCAAGAAGATCTAGAACAAGAACAAGTCAGGGTCAATTCTCTCACTCACATGGTGGTGGTAGTTGATGA
ATCTAGTGGAGATCACGCAACTGCTGCTTTGGAAGAACAACCTAAGGTATTGGGAGATCGATGGGCAAACATCTG
TAGATGGACAGAAGACCGCTGGGTTCTTTTACAAGACATCCTTCTCAAATGGCAACGTCTTACTGAAGAACAGTG
CCTTTTTAGTGATGGCTTTTCAGAAAAAGAAGATGCAGTGAACAAGATTACACAACTGGCTTTAAAGATCAAAA
TGAAATGTTATCAAGTCTTCAAAAACCTGGCCGTTTTAAAGCGGATCTAGAAAAGAAAAAGCAATCCATGGGCAA
ACTGTATTCACTCAAAACAAGATCTTCTTTCAACACTGAAGAATAAGTCAGTGACCCAGAAGACGGAAGCATGGCT
GGATAACTTTGCCCGGTGTTGGGATAATTTAGTCCAAAAACCTTGAAAAGAGTACAGCACAGATTTACAGGCTGT
CACCACCACTCAGCCATCACTAACACAGACAACCTGTAATGGAACAGTAACCTACGGTGACCACAAGGGAACAGAT
CCTGGTAAAGCATGCTCAAGAGGAACCTTCCACCACCACCTCCCCAAAAGAAGAGGCAGATTACTGTGGATTCTGA
AATTAGGAAAAGGTTGGATGTTGATATAACTGAACTTCACAGCTGGATTACTCGCTCAGAAGCTGTGTTGCAGAG
TCCTGAATTTGCAATCTTTTCGGAAGGAAGGCAACTTCTCAGACTTAAAAGAAAAAGTCAATGCCATAGAGCGAGA
AAAAGCTGAGAAGTTTCAGAAAACCTGCAAGATGCCAGCAGATCAGCTCAGGCCCTGGTGGAACAGATGGTGAATGA
GGGTGTTAATGCAGATAGCATCAAACAAGCCTCAGAACAACCTGAACAGCCGGTGGATCGAATTCTGCCAGTTGCT
AAGTGAGAGACTTAACTGGCTGGAGTATCAGAACAACATCATCGCTTTCTATAATCAGCTACAACAATTGGAGCA
GATGACAACCTACTGCTGAAAACCTGGTTGAAAATCCAACCACCACCCCATCAGAGCCAACAGCAATTTAAAGTCA
GTTAAAAATTTGTAAGGATGAAGTCAACCGGCTATCAGGTCTTCAACCTCAAATTGAACGATTTAAAAATTCAAAG
CATAGCCCTGAAAGAGAAAGGACAAGGACCCATGTTCTGGATGCAGACTTTGTGGCCTTTACAAATCATTTTAA
GCAAGTCTTTTCTGATGTGCAGGCCAGAGAGAAAGAGCTACAGACAATTTTGTACACTTTGCCACCAATGCGCTA
TCAGGAGACCATGAGTGCCATCAGGACATGGGTCCAGCAGTCAGAAACCAAACCTCTCCATACCTCAACTTAGTGT
CACCAGCTATGAAATCATGGAGCAGAGACTCGGGGAATTGCAGGCTTTACAAAGTTCTCTGCAAGAGCAACAAAG
TGGCCTATACTATCTCAGCACCCTGTGAAAGAGATGTGCAAGAAAGCGCCCTCTGAAATTAGCCGGAAAATATCA
ATCAGAATTTGAAGAAATTGAGGGACGCTGGAAGAAGCTCTCCTCCAGCTGGTTGAGCATTGTCAAAAGCTAGA
GGAGCAAATGAATAAACTCCGAAAAATTCAGAATCACATACAAACCCTGAAGAAATGGATGGCTGAAGTTGATGT
TTTTCTGAAGGAGGAATGGCCTGCCCTTGGGGATTTCAGAAATTCTAAAAAGCAGCTGAAACAGTGCAGACTTTT
AGTCAGTGATATTCAGACAATTCAGCCCAGTCTAAACAGTGTCAATGAAGGTGGGCAGAAGATAAAGAATGAAGC

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FIGURE 311B

AGAGCCAGAGTTTGCTTCGAGACTTGAGACAGAACTCAAAGAACTTAACACTCAGTGGGATCACATGTGCCAACA
GGTCTATGCCAGAAAAGGAGGCCTTGAAGGGAGGTTTGGAGAAAACCTGTAAGCCTCCAGAAAGATCTATCAGAGAT
GCACGAATGGATGACACAAGCTGAAGAAGAGTATCTTGAGAGAGATTTTGAATATAAAACCTCCAGATGAATTACA
GAAAGCAGTTGAAGAGATGAAGAGAGCTAAAGAAGAGGCCCAACAAAAAGAAAGCGAAAGTGAAACTCCTTACTGA
GTCTGTAAATAGTGTATAGCTCAAGCTCCACCTGTAGCACAAAGAGGCCTTAAAAAGGAACCTTGAAACTCTAAC
CACCAACTACCAGTGGCTCTGCACTAGGCTGAATGGGAAATGCAAGACTTTGGAAGAAGTTTGGGCATGTTGGCA
TGAGTTATTGTCATACTTGGAGAAAGCAAACAAGTGGCTAAATGAAGTAGAATTTAACTTAAACCCTGAAAA
CATTCCTGGCGGAGCTGAGGAAATCTCTGAGGTGCTAGATTCACTTGAAAATTTGATGCGACATTCAGAGGATAA
CCCAAATCAGATTCGCATATTGGCACAGACCCTAACAGATGGCGGAGTCATGGATGAGCTAATCAATGAGGAACT
TGAGACATTTAATTTCTCGTTGGAGGGAACCTACATGAAGAGGCTGTAAGGAGGCAAAAGTTGCTTGAACAGAGCAT
CCAGTCTGCCCAGGAGACTGAAAAATCCTTACACTTAATCCAGGAGTCCCTCACATTCATTGACAAGCAGTTGGC
AGCTTATATTGCAGACAAGGTGGACGCAGCTCAAATGCCTCAGGAAGCCCAGAAAATCCAATCTGATTTGACAAG
TCATGAGATCAGTTTAGAAGAAATGAAGAAACATAATCAGGGGAAGGAGGCTGCCCAAAGAGTCTGTCTCAGAT
TGATGTTGCACAGAAAAAATTACAAGATGTCTCCATGAAGTTTCGATTATTCCAGAAACCAGCCAATTTTGAGCA
GCGTCTACAAGAAAGTAAGATGATTTTAGATGAAGTGAAGATGCACTTGCTGCATTGGAAACAAAGAGTGTGGA
ACAGGAAGTAGTACAGTCACAGCTAAATCATTGTGTGAACCTTGATAAAAGTCTGAGTGAAGTGAAGTCTGAAGT
GGAAATGGTGATAAAGACTGGACGTCAGATTGTACAGAAAAAGCAGACGGAAAAATCCCAAAGAAGTGTGAAAG
AGTAACAGCTTTGAAATTCATTATAATGAGCTGGGAGCAAAGGTAACAGAAAAGAAAGCAACAGTTGGAGAAATG
CTTGAAATTTGTCCTGTAAGATGCGAAAGGAAATGAATGTCTTGACAGAATGGCTGGCAGCTACAGATATGGAATT
GACAAAGAGATCAGCAGTTGAAGGAATGCCTAGTAATTTGGATTCTGAAGTTGCCTGGGGAAAGGCTACTCAAAA
AGAGATTGAGAAACAGAAGGTGCACCTGAAGAGTATCACAGAGGTAGGAGAGGCCTTGAAAACAGTTTGGGCAA
GAAGGAGACGTTGGTGGAAAGATAAACTCAGTCTTCTGAATAGTAACTGGATAGCTGTCACCTCCCAGCAGAAGA
GTGGTTAAATCTTTTGTGGAAATACCAGAAACACATGGAACCTTTTGACCAGAATGTGGACCACATCACAAAGTG
GATCATTGAGGCTGACACACTTTTGGATGAATCAGAGAAAAAGAAACCCCAGCAAAAAGAAGACGTGCTTAAGCG
TTTAAAGGCAGAACTGAATGACATACGCCCAAAGGTGGACTCTACACGTGACCAAGCAGCAAACCTTGATGGCAA
CCGCGGTGACCACTGCAGGAAATTAGTAGAGCCCCAAATCTCAGAGCTCAACCATCGATTTGCAGCCATTTTACA
CAGAATTAAGACTGGAAAGGCCTCCATTCTTTGAAGGAATTGGAGCAGTTTAACTCAGATATACAAAAATTGCT
TGAACCACTGGAGGCTGAAATTCAGCAGGGGGTGAATCTGAAAGAGGAAGACTTCAATAAAGATATGAATGAAGA
CAATGAGGGTACTGTAAAAAGAAATGTTTGCAAAGAGGAGACAACCTTACAACAAAGAAATCACAGATGAGAGAAAGCG
AGAGGAAATAAAGATAAAACAGCAGCTGTTACAGACAAAACATAATGCTCTCAAGGATTTGAGGTCTCAAAGAAG
AAAAAAGGCTCTAGAAATTTCTCATCAGTGGTATCAGTACAAGAGGCAGGCTGATGATCTCTGAAATGCTTGGA
TGACATTGAAAAAAAATTAGCCAGCCTACCTGAGCCAGAGATGAAAGGAAAAATAAAGGAAATGATCGGGAATT
GCAGAAGAAGAAAGAGGAGCTGAATGCAGTGCCTAGGCAAGCTGAGGGCTTGCTGAGGATGGGGCCGCAATGGC
AGTGGAGCCAACCTCAGATCCAGCTCAGCAAGCGCTGGCGGGAAATTGAGAGCAAATTTGCTCAGTTTCGAAGACT
CAACTTTGCACAAATTCACACTGTCCGTGAAGAAACGATGATGGTGTGACTGAAGACATGCCTTTGGAAATTTCT
TTATGTGCTTCTACTTATTTGACTGAAATCACTCATGTCTCACAAGCCCTATTAGAAGTGGAAACAACTTCTCAA
TGCTCCTGACCTCTGTGCTAAGGACTTTGAAGATCTCTTTAAGCAAGAGGAGTCTCTGAAGAATATAAAAGATAG
TCTACAACAAAGCTCAGGTCGGATTGACATTATTCATAGCAAGAAGACAGCAGCATTGCAAAAGTGAACGCCCTGT
GGAAAGGGTGAAGCTACAGGAAGCTCTCTCCAGCTTGATTTCCAATGGGAAAAAGTTAAACAAAATGTACAAGGA
CCGACAAGGGCGATTGACAGATCTGTTGAGAAATGGCGGCGTTTTTCATTATGATATAAAGATATTTAATCAGTG
GCTAACAGAAGCTGAACAGTTTCTCAGAAAGACACAAATTCCTGAGAATTGGGAACATGCTAAATACAAATGGTA
TCTTAAGGAACCTCCAGGATGGCATTGGGCAGCGGCAACTGTTGTCAGAACATTGAATGCAACTGGGGAAGAAAT
AATTCAGCAATCCTCAAAAACAGATGCCAGTATTTACAGGAAAAATTTGGGAAGCCTGAATCTGCGGTGGCAGGA
GGTCTGCAACAGCTGTCTAGACAGAAAAAAGAGGCTAGAAGAACAAAAGAATATCTTGTGAGAATTTCAAAGAGA
TTTAAATGAATTTGTTTTATGGTTGGAGGAAGCAGATAACATTGCTAGTATCCCCTTGAACCTGGAAAAGAGCA
GCAACTAAAAGAAAAGCTTGAGCAAGTCAAGTTACTGGTGGAAAGAGTTGCCCTGCGCCAGGGAATTCTCAAACA
ATTAATGAAACTGGAGGACCCGTGCTTGTAAGTGCTCCCATAGCCCAGAAAGAGCAAGATAAACTTGAAAATAA
GCTCAAGCAGACAAATCTCCAGTGGATAAAGGTTTCCAGAGCTTTACCTGAGAAACAAGGAGAAATTGAAGCTCA

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FIGURE 311C

AATAAAAGACCTTGGGCAGCTTGAAAAAAGCTTGAAGACCTTGAAGAGCAGTTAAATCATCTGCTGCTGTGGTT
ATCTCCTATTAGGAATCAGTTGGAAATTTATAACCAACCAACCAAGAAGGACCATTGACGTTTACAGGAACTGA
AATAGCAGTTCAAGCTAAACAACCGGATGTGGAAGAGATTTTGTCTAAAGGGCAGCATTGTTACAAGGAAAAACC
AGCCACTCAGCCAGTGAAGAGGAAGTTAGAAGATCTGAGCTCTGAGTGGGAAGGCGGTAAACCGTTTACTTCAAGA
GCTGAGGGCAAAGCAGCCTGACCTAGCTCCTGGACTGACCACTATTGGAGCCTCTCCTACTCAGACTGTTACTCT
GGTGACACAACCTGTGGTTACTAAGGA¹ACTGCCATCTCCAAACTAGAAAATGCCATCTTCTTGATGTTGGAGGT
ACCTGCTCTGGCAGATTTCAACCGGGCTTGGACAGAACTTACCGACTGGCTTTCTCTGCTTGATCAAGTTATAAA
ATCACAGAGGGTGATGGTGGGTGACCTTGGAGGATATCAACGAGATGATCATCAAGCAGAAGGCAACAATGCAGGA
TTTGGAAACAGAGGCGTCCCCAGTTGGAAGAACTCATTACCGCTGCCCCAAAATTTGAAAAACAAGACCAGCAATCA
AGAGGCTAGAACAATCATTACGGATCGAATTGAAAGAATTCAGAATCAGTGGGATGAAGTACAAGAACACCTTCA
GAACCGGAGGCAACAGTTGAATGAAATGTTAAAGGATTCAACACAATGGCTGGAAGCTAAGGAAGAAGCTGAGCA
GGTCTTAGGACAGGCCAGAGCCAAGCTTGAGTCATGGAAGGAGGGTCCCTATACAGTAGATGCAATCCAAAAGAA
AATCACAGAAACCAAGCAGTTGGCCAAAGACCTCCGCCAGTGGCAGACAAATGTAGATGTGGCAAATGACTTGGC
CCTGAAA²CTTCTCCGGGATTATTCTGCAGATGATACAGAAAAGTCCACATGATAACAGAGAATATCAATGCCTC
TTGGAGAAGCATTATATAAAGGGTGAGTGAGCGAGAGGCTGCTTTGGAAGAACTCATAGATTACTGCAACAGTT
CCCCCTGGACCTGGA³AGTTTCTTGCTGGCTTACAGAAGCTGAAACA⁴ACTGCCAATGTCTTACAGGATGCTAC
CCGTAAGGAAAGGCTCCTAGAAGACTCCAAGGGAGTAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGA
AATTGAAGCTCACACAGATGTTTATCACAACTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGGAAGGTTT
CGATGATGCAGTCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGAGTGA⁵ACTTCGGAAAAAGTCTCT
CAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGGAAGCGTCTGCACCTTTCTCTGCAGGA⁶ACTTCTGGT
GTGGCTACAGCTGAAAGATGATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCAGCAGTTCAGAAGCA
GAACGATGTACATAGGGCCTTCAAGAGGGAATTGAA⁷ACTAAAGA⁸ACCTGTAATCATGAGTACTCTTGAGACTGT
ACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTGA
GGAGAGAGCCCAGAATGTCACCTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAA
CCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCTTGA⁹AGACTCCAGGA¹⁰ACTTCAAGAGGCCACGGA
TGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCCGTGGGCGATCTCCTCATTGA
CTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCAC¹¹TTGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCA
CGTCAATGACCTTGCTCGCCAGCTTACCAC¹²TTTGGGCATTGAGCTCTCACCGTATAACCTCAGCACTCTGGAAGA
CCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCACAGGGA
CTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAA
AGTGCCCTACTATATCAACCACGAGACTCAAACA¹³ACTTGCTGGGACCATCCCCAAATGACAGAGCTCTACCAGTC
TTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCT
TTGCTTGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACTCAAGCAAAATGACCAGCC
CATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCTGGAGCAAGAGCACAA¹⁴ATTTGGT
CAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGAT
CCGTGTCCTGTCTTTTAA¹⁵AACTGGCATCATTTCCC¹⁶TGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTTT
CAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAT
TCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCGGGAGCTGCTTCCAATT
TGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTCTCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGTG
GCTGCCCGTCTCTGCACAGAGTGGCTGCTGCAGAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTG
TCCAATCATTGGATTACAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGG
TCGAGTTGCAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGT
TCGAGACTTTGCCAAGGTACTAAAAAACAATTTGAA¹⁷CCAAAAGGTATTTTGCGAAGCATCCCCGAATGGGCTA
CCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGA¹⁸AACTCCC¹⁹GTTACTCTGATCAACTTCTGGCCAGTAGA
TTCTGCGCCTGCCTCGTCCCCCTCAGCTTTCACACGATGATACTCATTACGCATTGAACATTATGCTAGCAGGCT
AGCAGAAATGGA²⁰AAACAGCAATGGATCTTATCTAAATGATAGCATCTCTCCTAATGAGAGCATAGATGATGAACA
TTTGTTAATCCAGCATTACTGCCAAAGTTTGA²¹ACCAGGACTCCCCCTGAGCCAGCCTCGTAGTCTTGCCAGAT
CTTGATTTCTCTAGAGAGTGAGGAAAGAGGGGAGCTAGAGAGAATCCTAGCAGATCTTGAGGAAGAAAACAGGAA

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FIGURE 311D

TCTGCAAGCAGAATATGACCGTCTAAAGCAGCAGCACGAACATAAAGGCCTGTCCCCACTGCCGTCCCCTCCTGA
AATGATGCCCACCTCTCCCCAGAGTCCCCGGGATGCTGAGCTCATTGCTGAGGCCAAGCTACTGCGTCAACACAA
AGGCCGCCTGGAAGCCAGGATGCAAATCCTGGAAGACCACAATAAACAGCTGGAGTCACAGTTACACAGGCTAAG
GCAGCTGCTGGAGCAACCCAGGCAGAGGCCAAAGTGAATGGCACAACGGTGTCTCTCTCTTCTACCTCTCTACA
GAGGTCCGACAGCAGTCAGCCTATGCTGCTCCGAGTGGTTGGCAGTCAAACCTTCGGACTCCATGGGTGAGGAAGA
TCTTCTCAGTCCTCCCCAGGACACAAGCACAGGGTTAGAGGAGGTGATGGAGCAACTCAACAACCTCTTCCCTAG
TTCAAGAGGAAGAAATACCCCTGGAAAGCCAATGAGAGAGGACACAATGTAGGAAGTCTTTTCCACATGGCAGAT
GATTTGGGCAGAGCGATGGAGTCCTTAGTATCAGTCATGACAGATGAAGAAGGAGCAGAATAAATGTTTTACAAC
TCCTGATTCCCGCATGGTTTTTATAATATTCATACAACAAAGAGGATTAGACAGTAAGAGTTTACAAGAAATAAA
TCTATATTTTTGTGAAGGGTAGTGGTATTATACTGTAGATTTTCAGTAGTTTCTAAGTCTGTTATTGTTTTGTAA
CAATGGCAGGTTTTACACGTCTATGCAATTGTACAAAAAGTTATAAGAAAACCTACATGTAAATCTTGATAGCT
AAATAACTTGCCATTTCTTTATATGGAACGCATTTTGGGTTGTTTTAAAAATTTATAACAGTTATAAAGAAAGATT
GTAAACTAAAGTGTGCTTTATAAAAAAAGTTGTTTATAAAAAACCCCTAAAAACAAAACAAACACACACACAC
ACATACACACACACACACAAAACCTTGAGGCAGCGCATTGTTTTGCATCCTTTTGGCGTGATATCCATATGAAAT
TCATGGCTTTTTCTTTTTTGCATATTAAAGATAAGACTTCCTCTACCACCACACCAAATGACTACTACACACTG
CTCATTGAGAAGTGTGAGCTGAGTGGGGCAGGCTTGAGTTTTCATTTTATATCTATATGCTATAAGTATAT
AAATACTATAGTTATATAGATAAAGAGATACGAATTTCTATAGACTGACTTTTTCCATTTTTTAAATGTTTCATGT
CACATCCTAATAGAAAGAAATTACTTCTAGTCAGTCATCCAGGCTTACCTGCTTGGTCTAGAATGGATTTTTCCC
GGAGCCGGAAGCCAGGAGGAACTACACCACACTAAACATTGTCTACAGCTCCAGATGTTTCTCATTTTTAAACA
ACTTTCCACTGACAACGAAAGTAAAGTAAAGTATTGGATTTTTTTAAAGGGAACATGTGAATGAATACACAGGAC
TTATTATATCAGAGTGAGTAATCGGTTGGTTGGTTGATTGATTGATTGATTGATACATTGAGCTTCCTGCTGCTA
GCAATGCCACGATTTAGATTTAATGATGCTTCAGTGGAAATCAATCAGAAGGTATTCTGACCTTGTGAACATCAG
AAGGTATTTTTTAACTCCCAAGCAGTAGCAGGACGATGATAGGGCTGGAGGGCTATGGATTCCCAGCCCCATCCCT
GTGAAGGAGTAGGCCACTCTTTAAGTGAAGGATTGGATGATTGTTTATAATACATAAAGTTCTCTGTAATTACAA
CTAAATTATTATGCCCTCTTCTCACAGTCAAAAGGAAGTGGTGGTTTTGGTTTTTGTGCTTTTTTAGATTTATT
GTCCCATGTGGGATGAGTTTTTAAATGCCACAAGACATAATTTAAATAAATAAACTTTGGGAAAAGGTGTAAGA
CAGTAGCCCCATCACATTTGTGATACTGACAGGTATCAACCCAGAAGCCCATGAACTGTGTTTCCATCCTTTGCA
TTTCTCTGCGAGTAGTTCCACACAGGTTTGTAAAGTAAGTAAGAAAGAAGGCAAATTGATTCAAATGTTACAAAAA
AACCCTTCTTGGTGGATTAGACAGGTTAAATATATAAACAAACAAACAAAAATTGCTCAAAAAAGAGGAGAAAAG
CTCAAGAGGAAAAGCTAAGGACTGGTAGGAAAAAGCTTTACTCTTTCATGCCATTTTATTCTTTTTGATTTTTTA
AATCATTTCATTCAATAGATACCACCGTGTGACCTATAATTTTGCAAATCTGTTACCTCTGACATCAAGTGTAATT
AGCTTTTGGAGAGTGGGCTGACATCAAGTGTAAATTAGCTTTTGGAGAGTGGGTTTTGTCCATTATTAATAATTAA
TTAATTAACATCAAACACGGCTTCTCATGCTATTTCTACCTCACTTTGGTTTTGGGGTGTTCCTGATAATTGTGC
ACACCTGAGTTCACAGCTTCACCACTGTCCATTGCGTTATTTCTTTTTCTTTTATAATTCTTTCTTTTTCTT
CATAATTTTTCAAAGAAAACCCAAAGCTCTAAGGTAACAAATTACCAAATTACATGAAGATTGGTTTTTGTCTT
GCATTTTTTTCTTTATGTGACGCTGGACCTTTCTTTACCCAAGGATTTTTAAACTCAGATTTAAACAAGGG
GTTACTTTACATCCTACTAAGAAGTTAAGTAAGTAAGTTTCATTCTAAAATCAGAGGTAAATAGAGTGCATAAA
TAATTTTGTTTTAAATCTTTTTGTTTTCTTTTAGACACATTAGCTCTGGAGTGAGTCTGTGATAATTTGAACA
AAAATTGAGAGCTTTATTGCTGCATTTAAGCATAATTAATTTGGACATTATTTTCGTGTTGTGTTCTTTATAACC
ACCGAGTATTAACTGTAAATCATAATGTAAGTGAAGCATAAACATCACATGGCATGTTTTGTGATTGTTTTAG
GTACTGAGTTCTTACTTGAGTATCATAATATATTGTGTTTTAACCAACACTGTAAACATTTACGAATTATTTTT
TTAACTTCAGTTTTACTGCATTTTCACAACATATCAGACTTCACCAAATATATGCCTTACTATTGTATTATAGT
ACTGCTTTACTGTGTATCTCAATAAAGCACGCAGTTATGTTAC

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FIGURE 312A

MLWWEVEDCYEREDVQKKTFTKWVNAQFSKFGKQHIEENLFSDLQDGRRLDLLLEGLTGQKLPKEKGSTRVHALN
NVNKAIRVLQNNNVDLVNIGSTDIVDGNHKLTLGLIWNIIHLHWQVKNVMKNIMAGLQQTNSEKILLSWVRQSTRN
YPQVNVINFTTSWSDGLALNALIHSHRPDLFDWNSVVCQQSATQRLEHAFNFIARYQLGIEKLLDPEDVDTTYDPK
KSILMYITSLSFQVLPQQVSIEAIQEVEMLPRPPKVTKEEHFQLHHQMHYSQQITVSLAQGYERTSSPKPRFKSYA
YTQAAYVTTSDPTRSPFPSQHLAEPEDKSFSSLMSEVNLDRYQTALAEVLSWLLSAEDTLQAQGEISNDVEVV
KDQFHTHEGYMMDLTAHQGRVGNILQLGSKLIGTGKLSSEDEETEVEQEQMNLNLSRWECRLVASMEKQSNLHRVLM
DLQNQKLKELNDWLTKTEERTRKMEEEPLGPDLEDLKRQVQOHKVLQEDLEQEQRVNSLTHMVVVVDESSGDHA
TAALAEQLKVLGDRWANICRWTEDRWVLLQDILLKWQRLTEEQCLFSAWLSEKEDAVNKIHTTGFKDQNEMLSSL
QKLAVLKADLEKKQSMGKLYSLKQDLLSTLKNKSVTQKTEAWLDNFARCDNLVQKLEKSTAQISQAVTTTQPS
LTQTTVMETVTTVTTREQILVKHAQEELPPPPQKQRKITVDSEIRKRLDVDITELHSWITRSEAVLQSPEFAIF
RKEGNFSDLKEKVNAIEREKAERKQDASRSAQALVEQMVNEGVNADSIKQASEQLNSRWIEFCQLLSERLNLW
LEYQNNIIAFYNQLQQLEQMTTAEENWLKIQTTPSEPTAIKSQLKICKDEVNRLSGLQFQIERLKIQSIALKEK
GGGPMFLDADFVAFTNHFKQVPSDVQAREKELQITFDTLPPMRYQETMSAIRTWVQQSETKLSIPQLSVTDYEIM
EQRLGELQALQSSSQEQSGLYLSTTVKEMSKKAPSEISRKYQSEFEEIEGRWKKLSSQLVEHCQKLEEQMNKL
RKIQNHIIQTLKKWMAEVDVFLKEEWPALGDSEILKKQLKQCRLLVSDIQTIQPSLNSVNEGGQKIKNEAEPEFAS
RLETTELKELNTQWDHMCQQVYARKEALKGGLEKTVSLQKDLSEMHEWMTQAEEEYLERDFEYKTPDELQKAVEEM
KRAKEEAQQKEAKVKLLTESVNSVIAQAPPVQAQALKELETLTNYQWLCTRLNGKCKTLEEVWACWHELLSYL
EKANKWLNEVEFKLTENIPGAAEISEVLDLENLMRHSNPNQIRILAQTLTDGGVMDELINEELETFNRSR
WRELHEEAARRQKLLQESIQSAQETESLHLIQESLTFIDKQLAAYIADKVDAAQMPQEAQKIQSDLTSHEISLE
EMKKHNQKGKAAQRVLSQIDVAQKKLQDVSMKFRFLQKPANFEQRLQESKMILDEVKMHLPALETKSVEQEVVQS
QLNHCNVLYKSLSEVKSEVEMVIKTGRQIVQKKQTENPKELDERVTALKLHYNELGAKVTERKQOLEKCLKLSRK
MRKEMNVLTETWLAATDMELTKRSVEGMPNSNLDSEVAVGKATQKEIEKQKVHLKSITEVGEALKTVLGKKETLVE
DKLSLLNSNWIAVTSRAEENLNLLEYQKHMETFQNVNDHITKWI IQADTLLEDESEKKKPPQKEDVLKRLKAELN
DIRPKVDSTRDQAANLMANRGDHCRLVEPQISELNHRFAAISHRIKTGKASIPLKELEQFNSDIQKLEPLEAE
IQQGVNLKEEDFNKDMNEDNEGTVKELLQRGDNLQQRITDERKREEIKIKQQLLQTKHNALKDLRSQRRKKALEI
SHQWYQYKRQADDLLKCLDDIEKKLASLPEPRDERKIKEIDRELQKKKEELNAVRRQAEGLSEDGAAMAVEPTQI
QLSKRWREIESKFAQFRRLNFAQIHTVREETMMVMTEDMPLISYVPSTYLTEITHVSQALLEVEQLLNAPDLCA
KDFEDLFKQEEESLKNIKDSLQSSGRIDIHSHKKTAAALQSATPVERVKLQEALSQDLDFQWEKVNMYKDRQGRFD
RSVEKWRRFHYDIKIFNQWLTEAEQFLRKTQIPENWEHAKYKWLKELQDGIGQRQTVVRTL NATGEEIIQSSK
TDASILQEKGLSLNLRWQEVCKQLSDRKKRLEEQKNILSEFQRDLEFVLWLEEADNIASIPLEPGKEQQLKEKL
EQVKLLVEELPLRQGIKQLNETGGPVLVSAPISPEEQDKLENKQTNLQWIKVSRALPEKQGEIEAQIKDLGQ
LEKKLEDLEEQLNHLNLLWLSPIRNQLEIYNQPNQEGPFDVQETIEAVQAKQPDVEEILSKGQHLKKEPATQPVK
RKLEDLSSEWKAVERNLLQELRAKQPD LAPGLTTIGASPTQTVTLVTQPVVTKETAISKLEMPSSLMLEVPALADF
NRAWTELTDWLSLLDQVIKSQRVMVGDLLEDINEMI KQKATMQDLEQRRPQLEELITAAQNLKNKTSNQEARTII
TDRIERIQNQWDEVQEHLQNRQQQLNEMLKDSTQWLEAKEEAEQVLGQARAKLESWKEGPYTVDAIQKKITETKQ
LAKDLRQWQTNVDVANDLALKLLRDYSADDTRKVMITENINASWRSIHKRVSREAALEETHRLLQQFPDLLEK
FLAWLTEAETTANVLQDATRKERLLED SKGVKELMKQWQDLQGEIEAHTDVYHNLDENSQKILRSLEGSDDAVLL
QRRLDNMNFKWSELRRKSLNIRSHLEASSDQWKRLHLSLQELLVWLQKDDLELSRQAPIGGDFPAVQKQNDVHRA
FKRELKTKEPVIMSTLETVRIFLTEQPLEGLEKLYQEPRELPPPEERAQNVTRLRLKQAEVNTWEKLNHLSADW
QRKIDETLERLQELQEADELDLKLRAEVIKGSWQPVGDLIDSLQDHLEKVKALRGEIAPLKENVSHVNDLAR
QLTTLGIQLSPYNLSTLEDLNRWKLQVAVEDRVRQLHEAHRDFGPASQHFLLSTSVQGPWERAISPKNVPYYIN
HETQTTCDWHPKMTELYQSLADLNNVRFSAYRTAMKLRLQLKALCLDLSLSAACDALDQHNKQNDQPMDILOI
INCLTTIYDRLEQEHNNLVNVPLCVDMLNWLNNVYDTGRTGRIRVLSFKTGIISLCKAHLEDKYRYLFKQVASS
TGFCQDQRLGLLLHDSIQIPRQLGEVASFGGSNIEPSVRSFCQFANNKPEIEAALFLDWMRLPQSMVWLPVLHR
VAAAETAKHQAACNICKECPIIGFRYRSLKHFNYDICQSCFFSGRVAKGHKMHYPMVEYCTPTTSGEDVRDFAKV
LKNKFRTKRYFAKHPRMGYLPVQTVLEGDNMETPVTILNFWPVD SAPASSPQLSHDDTHSRIEHYASRLAEMENS
NGSYLNDISPNESIDDEHLLIQHYCQSLNQDSPLSQPRSPAQILISLESEERGELEIRILADLEENRNRLQAEYD
RLKQQHEHKGLSPLSPPEMMPTSPQSPRDAELIAEAKLLRQHKGRLEARMQILEDHNKQLESQHLRLRQLLEQP

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FIGURE 312B

QAEAKVNGTTVSSPSTSLQRSDSSQPMLLRVVGSTSDSMGEEDLLSPQDTSTGLEEVMEQLNNSFPSSRGRNT
PGKPMREDTM

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FIGURE 313

CTCGTCATGCGCAATGTGGCGCTGCGGCGGGCGGCAGGGCCTGTGTGTGCTGAGGCGGCTGAGCGGCGGACATGC
ACACCACAGAGCGTGCGGATGGAACAGTAACCGGGCTTGTGAGAGGGCTCTGCAGTATAAACTAGGAGACAAGAT
CCATGGATTACCGTAAACCAGGTGACATCTGTTCCCGAGCTGTTCTGACTGCAGTGAAGCTCACCCATGATGA
CACAGGAGCCAGGTATTTACACCTGGCCAGAGAAGACACGAATAATCTGTTTCAGCGTGCAGTTCCGTACCCTCC
CATGGACAGTACTGGTGTTCCTCACATTCTTGAGCATACCGTCCCTTTGTGGGTCTCAAAAAATATCCGTGCAGAAA
CCCTTTCTTCAAAATGTTGAACCGGTCCCTCTCCACGTTTCATGAACGCCTTCACAGCTAGTGATTATACTCTGTA
TCCATTTTCCACACAAAATCCCAAGGACTTTCAGAATCTCCTCTCGGTGTATTTGGATGCCACCTTTTCCCATG
TTTACGCGAGCTGGATTTCTGGCAGGAAGGATGGCGGCTGGAACATGAGAATCCGAGCGACCCCCAGACGCCCTT
GGTCTTTAAAGGAGTCGTCTTTAATGAGATGAAGGGAGCGTTTACAGACAATGAGAGGATATTCTCCAGCACCT
TCAGAACAGACTTCTTCCCGACCACACGTACTCAGTGGTCTCCGGGGGTGACCCACTGTGCATCCCGGAGCTTAC
ATGGGAGCAGCTTAAGCAGTTTCATGCCACTCACTATCACCCAAGCAATGCTAGGTTCTTCACGTACGGTAATTT
TCCATTAGAACAGCATCTGAAACAAATTCACGAGGAAGCACTGAGCAAATTCAGAAAATGAACCAAGCACCGT
GGTGCCAGCTCAGACACCCCTGGGACAAGCCTAGGGAATTCCAGATAACATGTGGCCCGGATTCAATTGCTACAGA
TCCCTCTAAACAAACAACCGTCAGCGTTAGCTTCCCTTACC GGACATCACCGACACATTTGAAGCCTTCACATT
AAGTCTTCTGTCTTCACTCTTGACTTCTGGGCCCAATTCTCCCTTTTACAAAGCCTTGATTGAATCTGGCCTTGG
CACAGAATTTTCTCTGATGTTGGATATAATGGCTACACGAGGGAGGCCTACTTTAGTGTCGGCCTCCAAGGGAT
TGTGGAGAAAGACATTGAGACCGTCAGAAGCCTCATAGACAGAACGATTGATGAAGTAGTTGAGACAAGGATTGA
AGATGATCGAATTGAGGCTTTACTTCATAAAATTGAAATACAGATGAAACATCAGTCTACCAGCTTTGGGCTGAT
GCTGACATCATACATAGCTTCTTGCTGGAACCATGATGGGGACCCTGTGGAGCTCTTGAAGTTGGGAAATCAGTT
AGCTAAATTCAGACAGTGCCTGCAGGAAAATCCAAATTTTGAAGAAAAAGTAAACAGTATTTTAAGAATAA
CCAGCATAAGCTGACTTTATCGATGAGGCCAGATGACAAGTATCACGAGAAGCAGGCACAGGTGGAAGCCACGAA
GCTCAAGCAGAAGGTCGAGGCTCTGTCCCCCGGAGACAGGCAGCAGATCTACGAGAAAGGTCTAGAATTACGGAG
TCAACAAAGCAAACCTCAAGATGCCTCTTGCTGCCAGCGTTGAAAGTTTCCGATATTGAACCCACCATACTGT
CACAGAGTTGGACGTGGTCTTGACAGCTGGAGATATCCCTGTTCACTACTGCGCCAGCCACCAATGGCATGGT
GTATTTCCGGGCCTTCTCCAGCCTGAACACACTCCCGAGGAGCTGAGGCCCTATGTGCCCCCTTCTTGCAGCAT
CCTCACCAAGCTGGGCTGCGGCCTTCTTGACTACCGGGAGCAGGCTCAGCAGATAGAATTGAAGACCGGAGGGAT
GAGTGCTTCTCCCCACGTGCTCCCCGACGACTCACACATGGACACCTACGAGCAGGTAGGTGTGCTTTTCTCCTC
TCTCTGCCTGGATCGAAACCTGCCAGACATGATGCAGCTATGGAGTGAAATATTTAACAACCCGTGCTTTGAAGA
AGAGGAGCACTTCAAGGTGCTGGTGAAGATGACCGCCAGGAGCTCGCCAATGGAATTCCTGACTCTGGGCACCT
GTACGCATCCATCAGGGCAGGCCGACCCCTCACGCCCGCAGGGGACCTGCAGGAGACCTTCAGCGGGATGGATCA
GGTGCGGCTGATGAAGAGGATTGCAGAAATGACAGATATCAAACCCATCCTGAGGAAGCTCCCGGTATCAAGAA
ACACTTGTTAAATGGTGATAATATGAGGTGTTCACTGAATGCGACTCCTCAGCAGATGCCTCAGACAGAAAAAGC
GGTCGAAGACTTCTTTAGAAGCATCGGTGCGAGTAAAAAGGAACGGAGGCCCTGTGCGCCACACACGGTCGAGAA
ACCTGTGCCCAGCAGCTCTGGTGGAGATGCCACGTTCCCCATGGCTCCAGGTCATTAGGAAGCTGGTCATGGA
ACCCACCTTCAAGCCCTGGCAGATGAAGACTCACTTCCTGATGCCCTTCCCGGTGAATTACGTGGGTGAATGCAT
CCGAACCTGTCCCTACACGGACCCAGATCATGCCAGTCTTAAATCCTTGACGTTTGATGACTGCCAAATCTT
GCATACAGAAATTCGAGAAAAAGGCGGTGCTTATGGTGGAXGCGCAAACTCAGCCACAATGGGATTTTACCCT
TTACTCTTACAGGGACCCAAATACAATAGAGACGCTCCAGTCTTTTGGGAAGGCTGTGACTGGGCTAAGTCTGG
AAAATTCACACAGCAAGACATCGACGAAGCCAACTTTCTGTCTTCTCAACCGTAGATGCTCCTGTGCTCCTTC
AGACAAAGGAATGGACCACTTCTTGACGGCCTCTCGGATGAGATGAAGCAGGCCACAGAGAGCAGCTCTTTGC
TGTACGCCACGACAAGCTCCTGGCCGTGAGCGATAGGTACCTCGGCACTGGGAAGAGCACACACGGCCTGGCCAT
CCTCGGACCCGAGAACCCGAAAATTGCCAAGGACCCATCCTGGATCATCCGATGAGCAGCCGTGGCGCTCGACTG
CACAGGAGCCCAGACAATAACCTCCAAGCTGAAATGAAAAGTCAGAAATGCTACTGCTTTTTTCCAAGAATAT
TATGTCATTGAGTGTGCGCAAAGCCCTTGACTGGCGAGTCAAAAACCTCAGATCTATCTTAAGAGTGACCAGGAAG
AGGTTCAATTGAATAATCATGCATGAAGCGCCAAAGATGCACCATGTAGAATTTTCACTTTGTACTGGCAGGCTC
GTTTTACCTGATTCTAGAATATTTAAGAATCTAAAAATAAAGGGCAACTCTGACTTA

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FIGURE 314

MWRCGGRQGLCVLRRRLSGGHAHHRAWRWNSNRACERALQYKLGDKIHGFTVNQVTSVPELFLTAVKLTHDDTGAR
YLHLAREDNTNNLFSVQFRITPMDSTGVPHILEHTVLCGSQKYPCRNPFCKMLNRSLSFTMNAFTASDYTLYPFST
QNPKDFQNL LSVYLDATFSPCLRELDWFQEGWRLEHENPSDPQTPLVFKGVVFNEMKGAFDNERIFSQHLQNRL
LPDHTYSVVSGGDPLCIPELTWEQLKQFHATHYHP SNARFFTYGNFPLEQHLKQIHEEALSKEFKIEPSTVVP AQ
TPWDKPREFQITCGPDSFATDPSKQTTVSVSFLLPDITDTFEAFTLSLLSSLLTSGPNSPFYKALIESGLGTEFS
PDVGYNGYTREAYFSVGLQGIVEKDIETVRSLIDRTIDEVVETRIEDDRIEALLHKIEIQMKHQSTSFGLMLTSY
IASCWNHDGDPVELLKLGNQLAKFRQCLQENPKFLQEKVKQYFKNNQHKLTLSMRPDDKYHEKQAQVEATKLKQK
VEALSPGDRQQIYEKGLELRSQQSKPQDASCLPALKVSDIEPTIPVTELDVVLTAGDIPVQYCAQPTNGMVYFRA
FSSLNTLPEELRPYVPLFCSILTKLGCGLLDYREQAQQIELKTGGMSASPHVLPDDSHMDTYEQVGVLFS LCLD
RNL PDMMQLWSEIFNNPCFEEEEHFKVLVKMTAQELANGIPDSGHLYASIRAGRTLTPAGDLQETFSGMDQVRLM
KRIAEMTDIKPILRKLPRIKKHLLNGDNMRCSVNATPQQMPQTEKAVEDFLRSIGRSKKERRPVRPHTVEKPVPS
SSGGDAHVP HGSQVIRKLVMEPTFKPWQMKTHFLMPFPVNYVGECIRTVPYTDPDHASLKILARLMTAKFLHTEI
REKGGAYGGXAKLSHNGIFTLYSYRDPNTIETLQSFGKAVDWAKSGKFTQQDIDEAKLSVFSTVDAPVAPSDKGM
DHFLYGLSDEMKAHREQLFAVSHDKLLAVSDRYLGTGKSTHGLAILGPENPKIAKDPSWIIR

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FIGURE 315A

ATAGTCACCAGAAGCTGGAAGAGTCAAAGGACACATTCTCCCCTCAAGCCCCAGTGGGAGCACGGCCCAGCTGGA
TTTTGGACTTCTGGCCTCCAGAACTAGACAGGGCCTCACGGTGTACCCAGGGTGGAAATACAGTGGTGTGATCAT
AGCTCACTGCAGCCTGGAATTCCTGGGCTCAAGCAACCCTGCCACCTCAGCCTTCCAAGTAGCTAGGACTACAGA
ACATCCATGATAGCAGTCTTCTGTAAATCGAACTTTCAAGAATTCTCTGAAGGAACCAAGTAGGATATTCTTAC
ATCATGACTTAATGTGAATGCAAGAACAAGAAATAGGTTTTATCTCTAAATATAATGAAGGGCTGTGTGTAAACA
CTGACCCTGTCTCAATTCTAACAAGCATTTTAGACATGAGTTTACATCGGCATAATGGGTTTCTGATCGAGATCTTC
AGTCCTCTGCTTCATCTGTGAGCTTGCCTTCAGTCAAAAAGGCACCCAAAAAAGAAGAAATTTCAATAGGCTCCC
TGTTTCGGAGGAAAAAGATAACAAACGTAAATCAAGGGAGCTAAATGGCGGGGTGGATGGAATTGCAAGTATTG
AAAGTATACATTCTGAAATGTGTACTGATAAGAACTCCATTTTCTCTACAAATACCTCTTCTGACAATGGATTAA
CTTCCATCAGCAAAACAAATTGGAGACTTCATAGAGTGCCTTTTGTGCCCTTTTGCAGGCTTCTAAAGACAGATTTT
CTGATATAATGACTTGTCTACACAGATCTTGTGTGGATTGCTTACGACAATATTAAAGGATAGAAATCTCTGAAA
GCAGAGTTAATATTAGTTGCCAGAAATGTACTGAGCGGTTTAAATCCCCATGATATTCGCTTGATATTAAGTGATG
ATGTCTTGATGGAAAAATACGAAGAATTTATGCTTAGACGGTGGCTTGTTCAGATCCTGATTGTAGGTGGTGTCT
CAGCTCCAGACTGTGGATATGCTGTGATAGCATTGGATGTGCCAGCTGTCCAAAATTAACCTGTGGGCGAGAGG
GCTGTGGAACAGAGTTTTGCTACCACTGTAAACAGATTTGGCACCCCAACCAGACCTGTGATGCTGCTCGACAAG
AGAGAGCCCAGAGCTTACGTTTGAGAAGTATACGTTCTTCATCCATTAGTTATAGTCAAGAGTCTGGAGCAGCAG
CTGATGATATAAAGCCATGTCCACGATGTGCTGCTTATATAATAAAGATGAATGATGGGAGCTGCAATCACATGA
CATGTGCTGTTTGTGGTTGTGAGTTTTGTTGGTTGTGTATGAAAGAAATCTCAGATTTGCATTATCTAAGTCCAT
CAGGATGTACTTTTTGGGGGAAGAAACCCTGGAGCCGAAAGAAGAAATATTGTGGCAACTGGGAACACTGGTTG
GTGCTCCTGTGCGAATCGCTTTAATAGCTGGCATTGCTATTCTGCAATGATTATTGGCATTCTGTGTATGTGG
GCCGCAAGATTACAATCGCTATGAAGGCAAGGATGTTTCAAAGCACAAACGGAATTTGGCCATAGCAGGTGGTG
TAACGTTGTCTGTAATCGTGTCTCCAGTAGTAGCTGCAGTGACTGTAGGTATCGGTGTTTCTATTATGTTAGCTT
ATGTCTATGGCGTAGTTCCAATTTCTCTTTGTGCAAGCGGAGGTTGTGGAGTCTCAGCAGGCAATGGAAAAGGAG
TTAGGATTGAATTTGATGATGAAAATGATATAAATGTTGGTGGAACTAACACAGCTGTAGACACAACATCAGTAG
CAGAAGCAAGACACAACCCAAGCATAGGGGAGGGAAGTGTGGTGGGCTGACTGGCAGTTTGAGTGCAAGTGGAA
GCCACATGGATCGAATAGGAGCCATCCGAGACAACCTGAGTGAAACGGCCAGCACCATGGCACTAGCTGGAGCCA
GTATAACGGGGAGTCTGTGAGGAAGTGCCATGGTAACTGTTTAAACAGGTTGGAAGTACAAGCAGATGTACAGA
AAGAACGGTACAGTCTAAGTGGAGAATCTGGCACAGTCAGCTTGGGAACAGTTAGTGATAATGCCAGCACCAAAG
CAATGGCAGGATCCATTCTGAATTCCTACATCCCATTTGGACAAAGAAGGCAACAGTATGGAGGTGCAAGTAGATA
TTGAGTCAAAGCCATCCAAATTCAGGCACAACAGTGAAGCAGTAGTGTGGATGATGGCAGTGCCACCCGAAGTT
ATGCTGGCGGTTTATCCAGTGGCTTGCCTGAAGGTAAATCTAGTGCCACCAAGTGGTCCAAAGAAGCAACAGCAG
GGAAAAATCAAAAAGTGGTAAACTGAGGAAAAAGGGTAACATGAAGATAAATGAGACGAGAGAGGACATGGATG
CACAGTTGTTAGAACAACAAAGCACGAACCTCAAGTGAATTTGAGGCTCCATCCCTCAGTGACAGTATGCCTTCTG
TAGCAGATTCTCACTCTAGTCATTTTTCTGAATTTAGTTGTTCTGACCTAGAAAGCATGAAAATCTTGTAGTCT
ATGGTTCCAGTGATTATCACACCCGCTTTGCTACTGTTAACATTCTTCTGAGGTAGAAAATGACCGTCTGGAAA
ATCCCCACATCAGTGTAGCATTCTGTGGTTACCCAACTGCTTCTGTTTCTGAGAGTTTCACAGTTGAATCATA
TTGCTGAAGAACATGGTAACAATGGAATAAAACCTAATGTTGATTTATATTTTGGCGATGCACTAAAAGAAACAA
ATAACAACCACTCACATCAGACAATGGAATTAAAAGTTGCAATTCAGACTGAAATTTAGGCCCCATAAATGCTGCA
GAATAATTACCACTGTACAACCGTGTGTTGGAGCTGGTTGAACTACATGTGACTACTTAAGTTTACAGTTTACCAGC
AAAAGCCGGGTTTCATTATCATAATGCAGATACATTTTCTGTGTTTCTGCAAGGCATTGTGTGTCATGTGGATCTT
AGTTACCAAACATGAAGTGAAGGCTTTAAAAGTGCATTATTTTAAAGGATAATAAATTTGAAGAGCAAAGCATGT
TTTGTGTGTTTGGCACAAAACATTGCTTGAAGCACATACTTAGATAGAAATTTGGTCTTAATTTATATAATCAATA
TAAAATACTAATGCAATTCTACAGCATTCAAATGAAGAAACTTGAGGCTTTAGGGATAAGTGGTTAGTGATATT
TTATTGAACCCTAAAGAGATAAGTTTAAAAGAACTGCATAGGTTACTCTCAGTATATGATACTCTGTAAACATT
TCTATTTATATCGGCATAAATTTCAATTTTTTCTTCTATATGCAATGTGGTTATATAAAGCTTAATGCAGCTCAT
TTGCTACCATTTGGATACTTAGACACTTTGAGCAAGATTGTGGCAGTTTTTGCACAACCTTTGAAATAGAAATACC
TGGTACTCTATCTTGTATTGTTGATGCCATCTTAGAGGAAAAATGTAAAGGTAAGTAATTAAGCATATGACA
GCAACAAATAAGATACATAAAACTACAAAATAAAGTCCATTAGGTTATAAGTATTACAAAAATCCACCTTTCT

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FIGURE 315B

CTAAGGGGAAGTTTGTACCCCATTGATTCTTGGTGCCTTTGGGATCGACTGGGTTTTAATGGCCTAGTTATTTGA
GGATTTTGCTGTGTTGTTTTCCATGTCCTTCTCTGGTCACCTTGGATTATATATAAAAATACAGGAAATAGATAAA
CATGAATGTGATTAATAATGCTGAAAAAGTATTAGCCTACCAAAGACACACTCAGGCTTTAGTGAATAACTTTAC
ATAACCTCAGTTTTTAACACATGCATATCTTCTCCAACCATGAAATCAAAGCACGGTGCAGAACTTGTACCAAGT
AÇAAAAGGTCCATGTATGATTAGCATTATTTTCTTTTGCTTTTGTTTATGGACAATGTTTCAGCTGACATAAGCAG
AAGTTGGCCAAAATACTGCCTGTACTGTTAATTTCTGTATAATTCACTTAAATAAAAGCAGGTAAACCTCAATG
ATAGCAGTTAAAATGTTCTATCTTATGTATTTCTTTAAGTATTACCATTATGGTGCTACTGAGCGTTTTCTTTT
GGTAAAAAGAAAAATGCCATGGGCTGCAGTCTTCTTCCATCACTTTCCCTACCAGGTCCATTAATATGCTTATA
ACACTAGTGCCAGTTATTTTATTTGATAATGCTTATGGTATTTGTATATTTGTTTGCATTCCAATTTGTTTAAT
AATGAGTGTGTAAACTGCATACGTTAAATAAATGTAAATACTAATGTACTGCTGCAAAAAAAAAAAAAAAAAAAAA
AAAAAAA

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FIGURE 316

MQEQEIGFISKYNEGLCVNTDPVSILTSILDMSLHRQMGS DRDLQSSASSVSLPSVKKAPKKRRISIGSLFRRKK
DNKRKSRELNGGVDGIASIESIHSEMCTDKNSIFSTNTSSDNGLTSSISKQIGDFIECPLCLRHSKDRFPDIMTC
HHRSCVDCLRQYLRIEISESRVNISCPECTERFNP HDIRLILSDDVLMKEYEEFMLRRWL VADPDCRWCPAPDCG
YAVIAFGCASC PKLTGREGCGTEFCYHCKQIWHPNQTCDAARQERAQSLRLRTIRSSSSISYSQESGAAADDIKP
CPRCAAYIIKMNDGSCNHMTCAVCGCEFCWLCMKEISDLHYLSPSGCTFWGKKPWSRKKKILWQLGTLVGAPVGI
ALIAGIAIPAMIIGIPVYVGRKIHNR YEGKDVSKHKRNLA IAGGVTL SVIVSPVVA AVTVGIGVPIMLAYVYG VV
PISLCRSGGCGVSAGNGKGVRIEFD DENDINVG GTNTAVDTTSVAEARHNPSIGEGSVGGLTGSL SASGSHMDRI
GAIRDNLSETASTMALAGASITGSLSGS AMVNCFNRL EVQADVQKERYSLSGESGTVSLGTVSDNASTKAMAGSI
LNSYIPLDKEGNSMEVQVDIESKPSKFRHNSGSSSVDDGSATRSYAGGSSSGLPEGKSSATKWSKEATAGKKS KS
GKL RKKGNMKINETREDMDAQLLEQQSTNSSEFEAPSLSDSMPSVADSHSHFSEFSCSDLES MKTSCSHGSSDY
HTRFATVNILPEVENDRL ENSPHQCSISVVTQTASCSEVSQ LNHIAEEHGNGIKPNVDLYFGDALKETNNNHSH
QTMELKVAIQTEI

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FIGURE 317

GGCTCTGGGCATCACCAGCGGCCCCAGGGAAAAAGAAAGAAATGGGAAACAGCATGAAATCCACCCCTGCGCCTG
CCGAGAGGCCCCCTGCCAACCCGGAGGGACTGGATAGCGACTTCCTTGCCGTGCTAAGTGACTACCCGTCTCCTG
ACATCAGCCCCCGATATTCCGCCGAGGGGAGAACTGCGTGTGATTTCTGATGAAGGGGGCTGGTGAAAGCTA
TTTCTCTTAGCACTGGTCGAGAGAGTTACATCCCTGGAATATGTGTGGCCAGAGTTTACCATGGCTGGCTGTTTG
AGGGCCTGGGCAGAGACAAGGCCGAGGAGCTGCTGCAGCTGCCAGACACAAAGGTCGGCTCCTTCATGATCAGAG
AGAGTGAGACCAAGAAAGGGTTTTACTACTGTGCGTGAGACACAGGCAGGTAAAGCATTACCGCATTTCCTGTC
TGCCGAACAACCTGGTACTACATTTCCCGGAGGCTCACCTTCCAGTGCCCTGGAGGACCTGGTGAACCACTATTCTG
AGGTGGCTGATGGCCTGTGCTGTGTGCTCACCACGCCCTGCCTGACACAAAGCACGGCTGCCCCAGCAGTGAGGG
CCTCCAGCTCACCTGTCACCTTGCGTCAGAAGACTGTGGACTGGAGGAGAGTGTCCAGACTGCAGGAGGACCCCG
AGGGAACAGAGAACCCGCTTGCGGTAGACGAGTCCCTTTTTCAGCTATGGCCTTCGAGAGAGCATTGCCTCTTACC
TGTCCCTGACCAGTGAGGACAACACCTCCTTTGATCGAAAGAAGAAAAGCATCTCCCTGATGTATGGTGGCAGCA
AGAGAAAGAGCTCATTCTTCTCATCACCACCTTACTTTGAGGACTAGCCAAGAACAGACACAATGGTTTCATGCCC
AAAAGGAACAGAAAGTTCCAACCTATTGCCTGGGATCTTGCGAAAAGCGAGGTTCCCTGATCCCTGGGAGCCTCACG
TATTTTAGAAGCCAAGAGAAGCCACATGGAGACTCAAATTCGCATCTTCTCTATCCACATCATGACCAAAGGAAC
CCCTCCCTGGTGTCTGATCAGGGCTGTGGCATCACAAAACATTGGATCATGACATGTCGGGCGATGCTTGAAAA
GCCAGCATGTATGTATGCACACATTGTGTGTGTGGGAAGGACAAAAGCCACTCTCACAAGAAAGGGCACCAGGAC
TGCTCTCCAAGGAACGGACCTGTCCAGACAGTTAACTCCAAGGTCATTGGAGAGAAGTTCTGTATGGGCAAGC
CTGAGAGGGAGAGGAAACAAAAGCTGTGTCTGGCAGAAGGTCTGGGTTTGCAGATGGGTGCCCTGAATGGAAGT
ACTTTAACTAATCCATAGGGACTTCTGGTATGCTTTCTCTCTTTTTTAAAGGAAGTTCTGTGACACTAAACATTAG
CCCAAAGGACTTCTTAGCCTTCAATTGGGAGATACCTTTGGTCTGCTCCTGCACCAAAGCCATATGGGTGGAAGT
CAGTTGGCCTCCCTGGTTCTGCAGAGGGCCAGAAGAATGAGAGAGAGGAAGACTGCTGGCAGGGAAATCGAGGAG
GCGAGACTAGAAGTGCACCAGCTTCCCTGATGTCTGCAGCCATGGCTTTGCAGCGCAAACAGAAGTTCTCTGGGA
TGCTGGGATTCTTGCTGTATGAATGCATCAAGTATTCATTTATTGCCCGAATAGGCATTGCATTAAGTCTCTG
TTAGGTGTCAAGCAAGCCAAAAAAGATGCTAAGTCCTAACCCCAACAGAAAGTGTTCACAGTGTAGA
CGGGAAAAAATGTATAAACAAATGTGTAAAAAGAGAAATCAGCTCATGGCTTAGGATGGAATTAGAGACAGGTGA
GGGACACTCAGGAGCTCATTTCCAGCTGCTCTTCAGAGTGAAGGGCTGGCTGGATCGGGTAGGTAAGAATAGC
TGGATTTTTTAGAAAAGAAATGGATACAGTCTAAAGAATTAACCTACCCGGTACTTTATTCTAAGAAGGGTCTGG
CATCCATATGAGGAAAAATGCTCAGCTCCAGGAAAGATGGGGAGTCCAAGTGGATTAATGATGTCATGCATAATT
TTAAGAGACAAGGGAGAAAAACACAATGTATAGCCAGAGAAGGAGAAGCTCCCATCCAAATCCTACTAGGAAGAGA
GTGGGCTGCAGATGAATCTGTGACTCATGTTTCCC TGTTTCAAAGGGATCCTGGGGAAGGAGGGGAACATGCTTG
CAGTATCTCTCCCTGTCTGTCTGCTCACATAAGCAATCCGTCCATCTAAGCTCATCGTGCTACTGGTATGTGTAT
GTGCAGTTACACAGTTTCTGTATCATAAATCCTAGTGTGTTTATACAAGGAGACATCTGTGGTTTCCCCAACCG
TTCCAAAAGGCTATTTCAAAGGAACCCAGCCACGTATGAGAAATGAATGTAACACTGTGGACATTGACTTCCCGC
ATAAGGCAGGGTGACCCCTGAACTCCAGATGTTTGCACAGTATCTTATGTGTGTTTTCCGTTGTGACGAATGT
GATTGGAACATTTGGGGAGCACCCAGAGGGATTTTTCAGTGGGAAGCATTACACTTTGCTAAATCATGTATTTAT
TCCTGATTAAAAACAAACCTAATAAATATTTAACCTTGGC

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FIGURE 318

MGNSMKSTPAPAERPLPNPEGLDSDFLAVLSDYPSPDISPPIFRERGEKLRVISDEGGWWKAISLSTGRESYIPGI
CVARVYHGWLFEGLGRDKAEELLQLPDTKVGSFMI RESETKKGFYSLSVRHRQVKHYRIFRLPNNWYYISPRLTF
QCLEDLVNHYSEVADGLCCVLTPCLTQSTAAPAVRASSSPVTLRQKTVDWRRVSRLQEDPEGTENPLGVDESIF
SYGLRESIASYLSLTSEDNTSFDRKKKSIISLMYGGSKRKSSFFSSPPYFED

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FIGURE 319A

CTGCAGGAAGGAGAGAGGAAGAGGAGCAGAAGGGGGCAGCAGCGGACGCCGCTAACGGCCTCCCTCGGCGCTGAC
AGGCTGGGCCGGCGCCCGGCTCGCTTGGGTGTTTCGCGTCGCCACTTCGGCTTCTCGGCCGGTCGGGCCCTCGGC
CCGGGCTTGCGGCGCGCTCGGGGCTGAGGGCTGCTGCGGCGCAGGGAGAGGCCTGGTCTCGTGCCGAGGGAT
GTGAGTGGGAGCTGAGCCACACTGGAGGGCCCCGAGGGCCAGCCTGGAGGTCGTTTACAGAGCCGTGCCCGCCC
CGGGGCTTCGCAGACCTTGACCCGCCGGTAGGAGCCGCCCTGCGGGCTCGAGGGCGCGCTCTGGTCGCCCCGAT
CTGTGTAGCCGGTTTCAGAAGCAGGCAACAGGAACAAGATGTGAACTGTTTCTTCTGCAGAAAAAGAGGCTCT
TCCTCCTCCTCCCGCGACGGCAAATGTTCTGAAAAAGACTCTGCATGGGAATGGCCTGCCTTACGATGACAGAAA
TGGAGGGAACATCCACCTCTTCTATATATCAGAATGGTGATATTTCTGGAAATGCCAATTCTATGAAGCAAATAG
ATCCAGTTCTTCAGGTGTATCTTTACCATTCCCTTGGGAAATCTGAGGCAGATTATCTGACCTTTCCATCTGGGG
AGTATGTTGCAGAAGAAATCTGTATTGCTGCTTCTAAAGCTTGTGGTATCACACCTGTGTATCATAATATGTTTG
CTTTAATGAGTGAAACAGAAAGGATCTGGTATCCACCCAACCATGTCTTCCATATAGATGAGTCAACCAGGCATA
ATGTACTCTACAGAATAAGATTTTACTTTCCCTCGTTGGTATTGCAGTGGCAGCAACAGAGCCTATCGGCATGGAA
TATCTCGAGGTGCTGAAGCTCCTCTTCTTGATGACTTTGTCTATGTCTTACCTCTTTGCTCAGTGGCGGCATGATT
TTGTGCACGGATGGATAAAAGTACCTGTGACTCATGAAACACAGGAAGAATGTCTTGGGATGGCAGTGTTAGATA
TGATGAGAATAGCCAAAGAAAACGATCAAACCCCACTGGCCATCTATAACTCTATCAGCTACAAGACATTCTTAC
CAAAATGTATTCGAGCAAAGATCCAAGACTATCATATTTTGACAAGGAAGCGAATAAGGTACAGATTTTCGCAGAT
TTATTCAGCAATTCAGCCAATGCAAAGCCACTGCCAGAACTTGAACTTAAGTATCTTATAAATCTGGAACTC
TGCAGTCTGCCTTCTACACAGAGAAATTTGAAGTAAAGAACCTGGAAGTGGTCTTCAGGTGAGGAGATTTTTG
CAACCATTATAATAACTGGAAACGGTGAATTCAGTGGTCAAGAGGGAAACATAAAGAAAGTGAGACACTGACAG
AACAGGATTTACAGTTATATTGCGATTTTCCCTAATATTATTGATGTGAGTATTAAGCAAGCAAACCAAGAGGGTT
CAAATGAAAGCCGAGTTGTAACATATCCATAAGCAAGATGGTAAAAATCTGGAAATTGAACTTAGCTCATTAAAGG
AAGCTTTGTCTTTCTGTGTCATTAATTGATGGATATTATAGATTAAGTGCAGATGCACATCATTACCTCTGTAAAG
AAGTAGCACCTCCAGCCGTGCTTGAAAATATACAAAGCAACTGTCTATGGCCCAATTTGCATGGATTTTGCCATTA
GTAAACTGAAGAAAGCAGGTAATCAGACTGGACTGTATGTACTTCGATGCAGTCCTAAGGACTTTAATAAATATT
TTTTGACTTTTGTGTCGAGCGAGAAAAATGTCATTGAATATAAAGCACTGTTTGATTACAAAAATGAGAATGAAG
AGTACAACCTCAGTGGGACAAAGAAGAACTTCAGCAGTCTTAAAGATCTTTTGAATTGTTACCAGATGGAAACTG
TTCGCTCAGACAATATAATTTTCCAGTTTACTAAATGCTGTCCCCCAAAGCCAAAAGATAAATCAAACCTTCTAG
TCTTCAGAACGAATGGTGTCTTCTGATGTACCAACCTCACCAACATTACAGAGGCCTACTCATATGAACCAATGG
TGTTTTCACAAAATCAGAAATGAAGATTTGATATTTAATGAAAGCCTTGCCCAAGGCACTTTTACAAAGATTTTAA
AAGGCGTACGAAGAGAAGTAGGAGACTACGGTCAACTGCATGAAACAGAAGTTCTTTTAAAGTTCTGGATAAAG
CACACAGAACTATTTCAGAGTCTTCTTTGAAGCAGCAAGTATGATGAGCAAGCTTTCTCACAAGCATTGTTGTTT
TAAATTATGGAGTATGTGCTGTGGAGACGAGAATATTCTGGTTCAGGAGTTTGTAATAATTTGGATCACTAGATA
CATATCTGAAAAAGAATAAAAAATGTATAAATATATTATGGAACTTGAAGTTGCTAAACAGTTGGCATGGGCCA
TGCATTTTCTAGAAGAAAACACCCTTATTCATGGGAATGTATGTGCCAAAAATATTCTGCTTATCAGAGAAGAAG
ACAGGAAGACAGGAAATCCTCCTTTCATCAAACCTTAGTGATCCTGGCATTAGTATTACAGTTTTTGCCAAAGGACA
TTCTTCAGGAGAGAATACCATGGGTACCACCTGAATGCATTGAAAATCCTAAAAATTTAAATTTGGCAACAGACA
AATGGAGTTTTGGTACCCTTTGTGGGAAATCTGCAGTGGAGGAGATAAACCTCTAAGTGCTCTGGATTCTCAAA
GAAAGCTACAATTTTATGAAGATAGGCATCAGCTTCTGCACCAAAGTGGGCAGAATTAGCAAACCTTATAAATA
ATTGTATGGATTATGAACCAGATTTTCAGGCCTTCTTTCAGAGCCATCATACGAGATCTTAACAGTTTGTCTTACTC
CAGATTATGAACTATTAACAGAAAATGACATGTTACCAAATATGAGGATAGGTGCCCTAGGGTTTTCTGGTGCTT
TTGAAGACCGGGATCCTACACAGTTTGAAGAGAGACATTTGAAATTTCTACAGCAACTTGGCAAGGGTAATTTTG
GGAGTGTGGAGATGTGCCGGTATGACCTCTACAGGACAACACTGGGGAGGTGGTCGCTGTAAAAAAGCTTCAGC
ATAGTACTGAAGAGCACCTAAGAGACTTTGAAAGGGAAATGAAATCCTGAAATCCCTACAGCATGACAACATTG
TAAAGTACAAGGGAGTGTGCTACAGTGCTGGTGGCGTAATCTAAAATTAATTATGGAATATTTACCATATGGAA
GTTTACGAGACTATCTTCAAAAACATAAAGAACGGATAGATCACATAAACTTCTGCAGTACACATCTCAGATAT
GCAAGGGTATGGAGTATCTTGGTACAAAAGGTATATCCACAGGGATCTGGCAACGAGAAATATATTGGTGGAGA
ACGAGAACAGAGTTAAAATTTGGAGATTTTGGGTTAACCAAGTCTTGCCACAAGACAAAGAATACTATAAAGTAA
AAGAACCTGGTGAAGTCCCATATTCTGGTATGCTCCAGAATCACTGACAGAGAGCAAGTTTTCTGTGGCCTCAG

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FIGURE 319B

ATGTTTGGAGCTTTGGAGTGGTTCTGTATGAACTTTTCACATACATTGAGAAGAGTAAAAGTCCACCAGCGGAAT
TTATGCGTATGATTGGCAATGACAAACAAGGACAGATGATCGTGTTCCATTTGATAGAACTTTTGAAGAATAATG
GAAGATTACCAAGACCAGATGGATGCCAGATGAGATCTATATGATCATGACAGAATGCTGGAACAATAATGTAA
ATCAACGCCCCCTCCTTTIAGGGATCTAGCTCTTCGAGTGGATCAAATAAGGGATAACATGGCTGGATGAAAGAAAT
GACCTTCATTCTGAGACCAAAGTAGATTTACAGAACAAAGTTTTATATTTTACATTGCTGTGGACTATTATTACA
TATATCATTATTATATAAATCATGATGCTAGCCAGCAAAGATGTGAAAATATCTGCTCAAAACTTTCAAAGTTTA
GTAAGTTTTTCTTCATGAGGCCACCAGTAAAAGACATTAATGAGAATTCCTTAGCAAGGATTTTGTAGAAGTTT
CTTAAACATTGTCTGTTAACATCACTCTTGCTGCGCAAAAGAAAAAATAGACTTTTTCAACTCAGCTTTTTGA
GACCTGAAAAAATTATTATGTAAATTTTGCAATGT TAAAGATGCACAGAATATGTATGTATAGTTTTTACCACAG
TGGATGTATAATACCTTGGCATCTTGTGTGATGTTTTACACACATGAGGGCTGGTGTTCATTAATACTGTTTTCT
AATTTTTCCATAGTTAATCTATAATTAATTACTTCCTATAACAAATAAGATGTTTCAGATAATTGAATAAG
TACCTTTGTGTCCTTGTTCAATTTATATCGCTGGCCAGCATTATAAGCAGGTGTATACTTTTAGCTTGTAGTTCCA
TGTACTGTAAATATTTTTACATAAAGGGAACAAATGTCTAGTTTTATTTGTATAGGAAATTTCCCTGACCCTAA
ATAATACATTTTGAAATGAAACAAGCTTACAAAGATATAATCTATTTTATTATGGTTTCCCTTGTATCTATTTGT
GGTGAATGTGTTTTTTAAATGGAACATCTCCAAATTTTCTAAGACTACTATGAACAGTTTTCTTTTAAAATTT
TGAGATTAAGAATGCCAGGAATATTGTCATCCTTTGAGCTGCTGACTGCCAATAACATTCTTCGATCTCTGGGAT
TTATGCTCATGAACTAAATTTAAGCTTAAGCCATAAAATAGATTAGATTGTTTTTTAAAAATGGATAGCTCATTA
AGAAGTGCAGCAGGTTAAGAATTTTTTCTAAAGACTGTATATTTGAGGGGTTTCAGAATTTTGCATTGCAGTCA
TAGAAGAGATTTATTTCTTTTTAGAGGGGAAATGAGGTAAATAAGTAAAAAAGTATGCTTGTTAATTTTATTCA
AGAATGCCAGTAGAAAATTCATAACGTGTATCTTTAAGAAAAATGAGCATACATCTTAAATCTTTTCAATTA

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FIGURE 320

MGMACLTMTMEGTSTSSYQNGDISGNANSMKQIDPVLQVYLYHSLGKSEADYLTFFPSGEYVAEEICIAASKAC
GITPVYHNMFALMSETERIWYPPNHVFHIDESTRHNVLRYRIRFYFPRWYCSGSNRAYRHGISRGAEAPLLDDFVM
SYLFAQWRHDFVHGWIQVPVTHETQEECLGMAVLDMMRIAKENDQTPLAIYNSISYKTFLPKCIRAKIQDYHILT
RKRIRYRFRRFIQQFSQCKATARNLKLKYLINLETLQSAFYTEKFEVKEPGSGPSGEEIFATIIITGNGGIQWSR
GKHKESETLTEQDLQLYCDFPNIIDVSIKQANQEGSNESRVVTIHKQDGKNLEIELSSLREALSFVSLIDGYRL
TADAHHYLCKEVAPPVLENIQSNCHGPISMDFAISKLKAGNQTGLYVLRCSPKDFNKYFLTFAVERENVIEYK
HCLITKNENEEYNLSGTTKNFSSLDLLNCYQMETVRSDNIIFQFTKCCPPKPKDKSNLLVFRINGVSDVPTSPT
LQRPTHMNQMVFHKIRNEDLIFNESLGQGTFTKIFKGVRRVGDYQQLHETEVLLKVLDKAHRNYSSESFFEAASM
MSKLSHKHLVLNYGVCVCGDENILVQEFVKFGSLDTYLKKNKNCINILWKLEVAQLAWAMHFLEENTLIHGNVC
AKNILLIREEDRKTGNPPFIKLSDPGISITVLPKDILQERIPWVPPECIENPKNLNLATDKWSFGTTLWEICSGG
DKPLSALDSQRKLQFYEDRHQLPAPKWAELANLINNCMDYEPDFRPSFRAIIRDLNSLFTPDYELLTENDMLPNM
RIGALGFSGAFEDRDPTQFEERHLKFLQQLGKGNFGSVEMCRYDPLQDNTGEVVAVKKLQHSTEEHLRDFEREIE
ILKSLQHDNIVKYKVCYSAGRRLKLIMEYLPYGLRDYLOKHKERIDHIKLLQYTSQICKGMEYLGTKRYIHR
DLATRNLVENENRVKIGDFGLTKVLPQDKEYYKVKEPGESPFWYAPESLTKFSVASDVWSFGVVLYELFTY
IEKSKSPPAEFMRMIGNDKQGMIVFHLLIELLKNNGRLPRPDGCPDEIYMIMTECWNNNVNQRPSFRDLALRVDQ
IRDNMAG

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FIGURE 321

AAACACTTTGTCTCCAAAAGGAAGACAGACTTCACGTCATTTCATCTGTTCAATACTCTTCCGAACAACAGGAAA
TTTTGCCAGCTAATGATTCTCTTGCTTACAGTGACTCAGCTGGTAGCTTTTTTAAAAGAAGTAGACCGAGACATAG
AACAAATAGTAAAGTGTACAGACAATAAGAGAGAGAACCTCAATGAGGTAGTATCGGCCTTAACAGCACAAACAA
TGCGTTTTGAACCTGATAACAAAAACACTCAACGTAAAGACCCCTATTATGGAGCAGACTGGGGAATAGGGTGGT
GGACAGCTGTAGTGATAATGTTGATAGTAGGTATAATAACACCAGTGTTTTATTTGTTGTATTATGAAATTTTAG
CTAAGGTGGATGTTAGTCATCATTCAACAGTGGACTCTTCACATTTACATTCAAAAATCACACCCCCATCACAGC
AGAGAGAAATGGAAATGGAATTGTGCCAACTAAAGGAATACATTTTCAGCCAACAAGATGATCATAAACTGTATA
GTCAAGATTCTCAGTCACCTGCTGCTCAACAGGAAACATAGCAATTAGCTCATAATCAAATGTTAGTGGTCAGGT
CACATGTGCATCTGGAATGTGGTGAATCAGTTATATCCAATAATAGCTTCAAAGGCAGAATTTAGAGAGATTGAG
GATGCTTTTTGTTTTTAAACAAAAGGGTTTCACACTTTGAAAATTTTTTGAGCAACTAGTTGTTGATGTTGAGAGCA
GTTGATCCATAAATCTGGTGTGTGAATGTTTCAAGCAGAAATTAATTTAAATGTGTGTTTAGGAAGTACTTAACT
TGGAAGATGTATCATTTTTCTTAAAATGCATGTTTAAATTTTTATTTTTTAAAGTAATTTTTAAAAAGTTTATTAA
TGTTAAATTTATGATGCAGAATGATAGCATCAGATGTCTGCAGCTGAAAAAATTTACTACTATGAACCCCCAAA
ATATTCAGTTGCAAGAAAATTTGATTCTAAAATTTATTCATGGTAGGATACGTAACACACCCCCCTTCAAACTTTTTA
AAAAATACATTTAGCACATGTGCTATGAAAGCATACTGTAAGAGAAAGGGGAAAGTGATTTATAATTCCTACA
ACAGAGGCCAAGAAATAGATTAAAAATATTTTCAAGACCCCAAAATAATGTATTATGGTTGGGAAGTCAGTAGAAC
ACTGGAATAGGTGAAGACCTGACAGTAATTTTTGTCTTAAGAATGCTTTCTTTAGGACAGACCCCTTAACTCAC
CTCTGTGCATCTGTTTTTAAAATGATTATATTTGCCTCTGATATTTGAAAGCACTTTTGTAGTTTTGATGATGAA
AAATATATTAACGTGCATATTACCATTATTTAGGAAATAATTCCTTATATACTGTGATAAATCATTGCTGTAC
ATACAGTAACATGCCTTAATTACATTTAATGCCTTACTGCTTTAIGTAAGTAAATCCAAGTTTCAGAATTAAAAA
TAAGCATTATTTTCATATGGTCCAATCAGATTCGTTACATAGGCTATATAAATTTGTCTCCATTTTCACCATCAAG
CACAAATAATTGGGTCAAACTGCCTTTGAGGTCTGTTGAAGAAAATGGTTTCAATTAAGCAAAAAAGAGTAGAGGT
ATTTTATATTAGCAGTAACAGACAAATTTATTTAGTAATCCCTTAACTCTGTTTTTCAAAGAGAAAAATATCCAAT
TTAGACTTTTTTCTGATCTCTATATATAGCATCAAGTTGGGAAACAAAGGCCAAAGGTGTATAGATTGCTTGAA
AGGGGGTGGTAGTGCCTCTTTTTAAGATCTGTTGAGTCGGCTACAGTCTGGCTAAGTAAGAAGCATTTCGATACT
GATTCCATCATTTAATCTTTAAAAGTATGTGTTTTAAAAATGTAACCAGAATGATTCTTCAATAGAAATGAGATT
TGGTGGAGTCTGGATTGCCTGTTTTGTATATAATATATACTTAAGATATATAATACCACCTCATTTTCTGGGCAT
TATTTCTAATTGTTGATGTTTCAGGCTTTTGATAAGTCATTTTATATATTTCAAATTTAACTCAGAATAAGTAA
ATATTTATGGCAAATGCAGTTTTATGTACTTTCAGGAGAAGACCATCAGGAAAAGACAGGACAAAGAAGTCAAAC
ATTAAAGCCCTTGCAAATATTAGAGGACCTTAGACAATTACCAAAAAGTGTTTAAATAGGGAAGTTGCAAATGATT
CTCTTAGTAAATTAACATTTAAAAAGTAGTTTTAATGTGCCTTGGGCATCTTGAAAAGAAGAGTGTGATATAAT
TTATGCTTAGTGTTAACTGGTCATTTTACATTGTATTTATTAAGTCTGCTGAAAAATGAGGTTTTAAGGAAGAAA
ATGCAGATTATTTTAGGGTAAACAGGCCAGGTGTCCTTTGAAGAACTTTGTTTACATCAAATTGATGAAATTACA
GTGATTCCTTACTTTTTTGTCTAGTTGTACTTTGAAATGTATGGGTTTCGATTTCAAAAATATGTAACCTTATTT
TTTAAAGGAATAAGGTGTGCTGTGTATTTGTTGATTAAAAATCATTGTCTTGCAAGTATCCTTTTTTGAAGGA
AATATACATCCTTATAACACATCAGGTAGTTTTCTTTTTCTGTATTTAAATTATATATTTGAATTAATTGAATA
TAATTTGAGTTACATATAATTTCTATATAAAGGTTACATATTGAATTATGGTTCTAATCTGTTTAGGAAAGAAATG
AATTTTCTAAGCATTTAATACATTTGGAATAATTTTAGTTTCTAAAAAGTACTAATGTAAGTTAAGTTTATATCA
AATGCAAATTACCTTGATAACTAACAAGCACAGTTATTGTTTAACTTATGGATTTTAAATTGTGTTGACACCCCT
TCTTTGAATTTGTTGCTTTACATGTGTGTCTGTGTGTGTGTCTGCATGTGTGCACGCATGTACTTGTATGCAATG
TAAAAGTAACAGCAGAATCATTGCATTTGGTTTTACTTAAAAATTTTGGAGTTAGCAAGTAAACAAAAGCTGATAG
TTTTATGAAGTCTCGGTTAAAATAAAATTTCTTTGCTATCTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 322

CATAACACAGCCAGCTTTTTGCTAGCCAGACCAAACCTCAAAGAGCAATGGCTGTACTTCTGAAATAGCAACACTT
TGTCCCTAGCTGAGATTTGGTAATAAGATTTTTTTTTTAAGTTTTTAAAXGAAGCTCAGTGGTTGAAAGTCTGCTT
AACTGAAACAGTAACATCCATGATGTGTGTTTTGTGCATGTTTGTATTTGAAAGGCCCTTCATGTTTTTGTCTT
GTTTGTTTTTCTCTCCTAAGACCTTGTCTTTTTTTTGTAGCAAAAGTTTTTTTTTTTTTTCCTTTTACTTCTCA
GTTGACTGAATTCTGTTTTACCGGATTTTTGACTAAAATAGCTATTGCAACAGAGGCTACTCTTGGGTAAAGG
AAGAATGTAGTTTCGTTTTATGTTTAATATCGCTCAAAGAAAAATAAAAGCATCTCCCTCTAACACCACCAGACT
TTTCCTCTCTGTACCTTATCATGTAAATTTTGCTATTTGATTTTCACCTGGGTGTTTCCTTTAATGTGCAAAAA
TTTAAGGCTATTTAGCTGACAACCTGCCTAGGGTTGTAAACAGGTTATCAAGAATCTGAAAGTCTAAGATAGG

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FIGURE 323

GGGCTTCCTGGGGAGGGTGTGGCAGGGTGGTGGGCATCCCCTCCCTCACCAAAGCATGGGCTCTTTGTTTCCTCT
TTGCCAGGCCTGGGTCCTTCCCAGTGACCCCTCAGCCTTCACTTCCTCCTCACTCCCGGGGAGCTGTGACAGGTG
TTTGGGGGAGGGGAGGGGGGTATGATAAGCTGGGACAGCTGCACCCACCGGTGCTCTGGTGAGATGGGGGGCCCG
GATGTTGGGGAGACACATCTGCTGGGTTCAGCCCAAGGTCCCCAACCTGGCTGTCTGGCCTTGCTGTGCACC
CCCCGTGCCCCTGGCAGGGACAGGAAGCTCCCCCCCCACCCCGCTTTGGGCAGTTTGCCCTGGCACGGGCCTGA
TCTGTTTTCTCCCCAGAGCAGCTGCTGTTCTGTCTGCTGGGCAGAGGGCTGGGTTCCCTCCGAGGTAGGCAGGGG
CCTCAACCCAGAGCCCCCTCTCACACCTCTTTCAACTCAGGCTTATGTCTCTCCCTCCTCCCCACCCCCACCCC
AGGAAGAGGAGATCCCAGAACTGGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCCGGGCTG
CCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCTTCATTTCTGGCCTGCTGGACAAGATCC
GGGGCATGCAGAAGCTGAGCACACCCCAAGAAGTGAGGGTCCCCGACCCAGGAGAACGGTGGCTCCCACAGGA
CAATCGCTGCCCCCAACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTGCCATGAGCAGG
GCTCCTCGTGCCCCTGGCCCAGGGGTCTCTCCCCCTGCCCCCTCAGTTTTCCACTTTTGGGGTTTTTTATTGTTA
TTAACTGATGGGACTTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 324

MLGRHICWVSPRSPTLAVWPCLSPPVPTGRDRKLPPHPALGSLPWHGPDLFSSPEQLLFCLLGRGLGSSEVGRG
LNPEPLSHPLSTQAYVSPSSPTPTPGRGDPRTGD

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FIGURE 325

GGCACGAGGCTGAGGTGTATTTCTGGGTCTTGCTGGGGCTGAGAGAGACCACAGCCCTTTGGGGGGTACAAACAAG
AGTTTCAGTTGCTGTGAATTTCTGCCACTGTGCCAGCTCTGAAGCCTCAGCTCTTGCCAAACAGACCCGAGACCCA
TGTCAGCCCCACTGGATGCCGCCCTCCACGCCCTTCAGGAGGAGCAGGCCAGACTCAAGATGAGGCTGTGGGACC
TGCAGCAGCTGAGAAAGGAGCTCGGGGACTCCCCCAAAGACAAGGTCCCATTTCAGTGCCCAAGATCCCCCTGG
TATTCCGAGGACACACCCAGCAGGACCCGGAAGTGCCTAAGTCTTTAGTTTCCAATTTGCGGATCCACTGCCCTC
TGCTTGCGGGCTCTGCTCTGATCACCTTTGATGACCCCAAAGTGGCTGAGCAGGTGCTGCAACAAAAGGAGCACA
CGATCAACATGGAGGAGTGCCGGCTGCGGGTGAGGTCCAGCCCTTGAGCTGCCCATGGTCACCAACATCCAGG
TGATGGTGTCCAGCCAGTTGAGTGGCCGGAGGGTGTGGTCACTGGATTTCTGCCAGCCTCAGGCTGAGTGAGG
AGGAGCTGCTGGACAAGCTAGAGATCTTCTTTGGCAAGACTAGGAACGGAGGTGGCGATGTGGACGTTCTGGGAGC
TACTGCCAGGGAGTGTCTGCTGGGGTTTGCTAGGGATGGAGTGGCTCAGCGTCTGTGCCAAATCGGCCAGTTCA
CAGTGCCACTGGGTGGGCAGCAAGTCCCTCTGAGAGTCTCTCCGTATGTGAATGGGGAGATCCAGAAGGCTGAGA
TCAGGTGCGAGCCAGTTCCCCGCTCGGTACTGGTGCTCAACATTCTGATATCTTGGATGGCCCCGAGCTGCATG
ACGTCCTGGAGATCCACTTCCAGAAGCCCACCCGCGGGGGCGGGGAGGTAGAGGCCCTGACAGTCGTACCCCAAG
GACAGCAGGGCCTAGCAGTCTTCACCTCTGAGTCAGGCTTAGGGGCCTCCCCTTCTCATCCTCCCCACCCCCCGC
CAAGGTTCTCACACTGGCCTGGGCTTGGGTGCCCATATAGGAGGTCTGTATGTTACCAACAGTGCGGAGGGGTC
ACACATTGCAAAACACTGCCCAGAACAGTAAAAAGAGCCTGCATGCCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 326

MSAPLDAALHALQEEQARLKMRLWDLQQLRKELGDSPKDKVPFSVPKIPLVFRGHTQQDPEVPKSLVSNLRIHCP
LLAGSALITFDDPKVAEQVLQQKEHTINMEECLRVQVQPLELPMVTTIQVMVSSQLSGRRVLVTGFPASLRLSE
EELLDKLEIFFGKTRNGGGDVDVRELLPGSVMLGFARDGVAQRLCQIGQFTVPLGGQQVPLRVSPYVNGEIQKAE
IRSQPVPRSVLVLNIPDILDGPELHDVLEIHFQKPTRGGGEVEALTVPVQGGQGLAVFTSESG

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FIGURE 327

ATCGAATCCATACCCGAATTTCAACTTTAACATCTCTCATCAAGGAGACTATGCAGTGCTTGCTGCTGAACCTGA
GCTGCAAGTTGGAATTGATATAATGAAGACTAGTTTTCCAGGTCGTGGTTCAATTCAGAATTCCTTCATATTAT
GAAAAGAAAAGTTTACCAACAAAGAATGGGAAACAATCAGAAGCTTTAAGGATGAGTGGACTCAGCTGGATATGTT
TTATAGGAATTGGGCACCTTAAGGAAAGCTTCATAAAAGCCATTGGTGTGGACTAGGATTTGAATTGCAGCGGCT
TGAATTTGATCTATCTCCATTAACTTGGATATAGGCCAAGTTTATAAAGAAACACGTTTATTCCTGGATGGAGA
GGAAGAAAAAGAATGGGCATTTGAGGAAAGCAAAATAGATGAGCACCATTTTGTGTCAGTTGCTCTTAGGAAACC
CGACGGATCTAGACATCAGGATGTTCCATCTCAGGATGATTCCAAACCAACCCAGAGGCAATTTACTATTCTCAA
CTTTAATGATTTAATGTCATCTGCCGTTCCCATGACACCTGAAGATCCTTCATTTTGGGACTGTTTTGCTTCAC
AGAAGAAATTCCAATACGAAATGGTACAAAGTCATGATGATTCCCTGAGTAACAAAGGGAAATGAAAACCTGTTTG
TGATCTTCCGTATTTCACTGAAAAATAAATGCTTGTGTTAGTATCAAATTTTATTTACGAAAGTTTTTAAAGAAC
AGAAACTTTTCCAATTAATAAAAAAAAAAGCAGACTTCTGGTTCAAGATAGCTCACTGGAATACATGTTTACCTCTT
TCTTTCTAAATTCGATTGAATTGATAGGAAGGATGGCGGAATCTTAAAGTGATACATGCTAACTGTAGAAAAAA
ATAGAAAATGCACATAAGCAAAAGGAAACATTTAAATGCTATCTTTCAAAGATAACTACTCTTAAACCTTGAGT
ATCTTTTCAGACCTTTTTCTTGGCAAATGAATCCATATTGACATATTTGATTTTTTTTAAAAACATGGAAACGTA
CTGTTTTGTAAATCTTTTTAACGTCACATCTACTGTTTATAAATATACCTCTGTAACATAACTTTTTGTGGTTC
TAATGTACTCTGTTGTATAGCTAATACAAGTTAGGATGCTTTTGGCCAGAGGTAACAGTGTCCAAATATAATTGG
CCTAAGTAACCTAGGAAATTGTTTGACATAACACAGGGTTCAGGGGTGTCATTAAAGACACACTTTTTTGCCTT
GACCTCAGTTGGTTTTGTTTTGCCTTAGGCTATTCCACCTCTCGATCACAAGAGCTGCTGCTATAACTTCCAGTTT
TACATCTTTGTAAATTTGTATCTCAAAGGCAGAAAAGGCCATTTCTGCTCTCATTGTTTTATCCATGAGGAAGA
TTTTTAACAAAAGCCTCCAGAAGATTTCCCCTCAGTTTCCATTGACTTAGATCAGGTTACAGAGAAAGGCAATGT
CTGACATTTTTTGGTCTCTGTTAGAAAGTAGACTCTGTTGAAAAGAAAGAAGCTAAGCTAGGTGTGGAGAATGGAAT
TGGAAGCCCCTGCTTCCCATAGAAAGGTTTACCATAATTTACTTACTTTTTCTGTGTTAGACATTTTGATT
ATCTGCAGTTTATTACTACAAGCAGTGGCAGAGTGAATGTCCTTGTACATTTTGAGTTACATGCTTAATTATGTC
CTTGAGAAAGTTTCTAATAGTGAATGATTGGTTTGAAGTTTCAAGGGCTTTAATTATACAATTTACCCCTCT
AATTAGTACTATATGTATGTGACTTCCCTCCCCCTGCCAGAATACTCCTTGGTCAATTGTAGGTATTCTTTTTGG
TTTAATTTTTTGCCAATGTAATTAATAAATGGTATGTCATTTTTAAATTTGTATTTCTTTCATTACAAATAAGAT
TGTTATGTCAGTATTGTTATTGGCTTTTCGTATTCCTCTTAACGTGATCCGTCTGTTTATTGTTTTACCTGTTT
TCGTTTTAGCAAGTAGTACTTAATTTAAAGTGTGAACCTTAATATATAAGATGCCAGGACCATCATATTGATGACA
AAAATCTATTATGTGGTTGTAGTGATGCTTGGAGTTAACTCTTAAGTATCAAGAAGTAAATAATTTTCATTG
TTTCTGTTACTAACATTAAAGTGTGCAATTTGTATAAAATTAGGTACTTCGATTAGTAAAAAGAAAAAATTTGA
ATGTTTTTTTTTTTATTTTATTAAGCATGCCAGTTATGCCAAGCATAGTAAATAAAGGTCAAGTAGCATTATA
ATAGAGGAAGTATTGTTATCCCTAGCATGAGTGTAATGGTGATATGAAAAACTTTGTCTTGTGCTATTATAATAA
AAAAATGAACATTTATTATGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 328

GACGCGCTGAGGAGGAGGAGGAGGCGGGGGCGGCCATGGCTGCTGTGGTGGTGGCGGCTGCGGGTGGCGCGGGA
CCGGCGGTCCGTCAGGTGGCCGGTCTCTACCGGGGCTGTGCGCGGTGCGCAGCCGCGCCCTGGGCCTGGGGCTC
GTGTACCCGCGCAGCTGCGCGTCTTCCAGTGCGCCCCGGCTCGGGCCGGCCGAGGGGGGCGCCGACGGCAGC
GGGGTCGGGGCCGAGGCCGAGCTCCAGGCCAACCCTTTCTACGACCGCTACCGCGACAAGATCCAGCTGCTGCGC
AGGTCAGACCCAGCTGCTTTTGTAGTCCCGCTGGAGAAACGCAGTGAATTTGGAAGCAGCCAGTGGGGCATTCC
AGGCAAGGTGATTTTATCAAATGTGTGGAACAGAAGACAGATGCCTTGGGGAAACAGTCTGTGAACAGAGGATTC
ACTAAGGACAAGACTCTCAGTTCAATCTTTAACAT TGAGATGGTAAAAAGAAAAAACTGCAGAAGAAATAAAACAG
ATTTGGCAGCAATATTTTGCAGCAAAAGATACAGTCTACGCAGTTATTCTGCAGAAAAGTTTGATTTGATCTGG
AACCGGGCTCAGTCTGTCCAACATTTCTATGTGCTCTGCCAAGAAGGGAAGGTTATGAGTTTTTGTAGGACAA
TGGACAGGTACTGAACCTCACTTCACTGCACCTATAAATATTCAGACCCGAGGGGAAGCTGCAGCCAGCCAGCTG
ATTTTATATCACTATCCTGAACCTTAAGGAAGAAAAGGGCATAGTGCTGATGACTGCAGAAATGGATTCCACATTT
CTGAATGTTGCTGAGGCACAGTGCATCGCCAACCAAGTTTCACTCTTCTACGCTACTGATCGGAAAGAGACCTAC
GGGTTAGTGGAGACCTTTAACCTCAGACCAAATGAGTTCAAATATATGTCTGTCTATCGCTGAATTGGAGCAAAGC
GGACTTGGAGCAGAACTGAAATGTGCCCAGAACCAAAATAAGACTTAGAACTGTACAGGTTGGCCCTTCACCTAG
TTGACTCAGCCCTCGATAGTCTAGAGCCACCCCTCTCTCAGGAACCTCAAGAGCTCAGCATTTATAATGAGCAGT
TGGTAATGAGTTGCCCTATGTGCTTGTGCAAGCAGTCACAGAGATGAGCCCTATTACTTGATATTCAGGAACAA
AGGTACCTGAACATTCTGATAATTATCTCAGCATACTTGAGGTTTCCTTTTTTAAGTGTTTCAGGTTATAACAAG
AGACAGCCAAGGACCTACAAGACAGTTGACTTGATTTTGCACAGTGTAACAGCGCAGTTGCATTCTGGCCACTTT
GACCTTATAGCTCCCAAATGATGAGTTTGTCTCTTTATGAACCTCATGACAGGATAATAAGCTTGAAGACCTGCT
GTAGTTAGATATGGGCTTTAATCCTTCCCATGCACCAGTCAGCTGAACAAAAGCATAAGCCAAACATCCTGTTTA
AACTGTAGAATAACCAGATATTCCTATCAGGTTAAAGACTTCATCTAGATGATGCCCCCAGAGATGCCTTTAGT
GTAAGTAGCTGGCTTGGGGTATCAGCAAATTTTCAAGGTATAGTTAGATAAACAGGTACAGGGCCTGCATACTATTA
AACCATAGTTTGTGGCACCCGCTTTTCTAACTCCACCTGTTAGAAGCTATGTGTTTGAAGGAATGAATCAGTGCA
GTATAAATAAAATCTTTTGTAAAGGAGAAGACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 329

MAAVVVAAGGAGPAVLQVAGLYRGLCAVRSRALGLGLVSPAQLRVFPVRPGSGRPEGGADGSGVGAEAEELQANP
FYDRYRDKIQLLRRSDPAAFESRLEKRSEFRKQPVGHSRQGDFIKCVEQKTDALGKQSVNRGFTKDKTLSSIFNI
EMVKEKTAEIEIKQIWQQYFAAKDTVYAVIPAEEKFDLIWNRAQSCPTFLCALPRREGYEFFVGQWTGTELHFTALI
NIQTRGEAAASQLILYHYPELKEEKGIVLMTAEMDSTFLNVAEAQCIANQVQLFYATDRKETYGLVETFNLRPNE
FKYMSVIAELEQSGLGAELKCAQNQNKT

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FIGURE 330

CTGTCACCAAGCAGGAGAGTTAAGGATTCACCATGAGCTGGGAAATGCTTTTGCCATGAGTATGAGCAAATTCCC
TCTTTCCCTGAATCATGGACATTCTAGATTAAAAGAACATTTTTGTGCTCTTAACAAGAAAACCATGGCCCTCC
TTTGTTCAAGTATCACAAGAAATAAACCCACAGCTCCAGAGAAGGTGACCATTCTCAGAACTCCAGCTATTCACT
CTCCAGGGAGAAGGACCTCAAATCGCCACTCTTTGGGCGGCAGGTGCGGTCCCCACGGCCGGCTCTACGAGGAAG
AGTTCTGGCTCTTTTGTCCACTGAGATGGTCTTGGTTTTTCACTTAACAAATTTTTTAATGGAATCTTTGTTTTT
GTTCTCCATCTTGTGTTAGAGTCTCTCGGCCTTTATTTACAAATTCCTTGCAACTAGAGCGCTCCTTCCCCAA
GATATGGTAGTGAGAGTAATTTTTCATTGTAGCTGTAGTCTCCATCAGTAACAGCAGGCCCTGGAAGACTTGATC
ACCTTTTTCTGTGTCATTTTCAGTCAAAGAGGGCCTCTCTTACATCTTGTTTGCTTTCAAATCCCCAAATATCAT
CTCCATCTCCCAATTAATTTTATTCTCTCTTTCTCTGTATTGCTTTCTCTGTTTTTTTTTAAAAAAAAGCA
TGAAAAAGGAAGAGAAAAAGTTTGATATGCCAAGGACAGATTTTGAAACAGACTTGGTAAATGTTTTCCTTAGCT
CCTTCATGGGCATGCTGGTGAAAGAATAAATACATCCAATTAAGCTCATGCTGGGGTGGGGGAGAAGAGGATAC
TGAAACATTTGTGAAATGTATGAATGCACCTCTGTAACCAGATACTTCTGTTCTTCTGTTCAAATTTGTGGGGTTT
TTGTTACAGTTAGGACGCCCATGAAGATTTAGGGGTGAAAAAACAGCAGAGTATTTATTAACACTACAGCATTGT
ACAATTAGCTTAGTAACACTATGGAATAAGCTAAAACATATCACAGTTTTTACATGGGCCAAAACATGAATTGAG
TATGTGGTCACATGAAAACACGCATGAATGAATAAAACACTCTTTGGTGGTGACTGAGGCATCATTAGAAGGCCC
AGACGATTTCCACTATTCACAGCATTTCCTTTTCTCAGAAGGACTCTTTATATTTCCATGTAAATCTAGATCTTT
GGAGCAATTAAGATGGAATTACAATTTCTAGGGAGCATTTTAAGGAAAATGTTTTGGCTTTTTTCATAATTTTATG
TCTTACAGTATGGAATTATAATACGAAAATCTTTATATGAGTTTTGGCTTCTTGGTATTTGTACTTATTCAGGGG
AAAAAGTCTTTTCGATTACTTATGCCTCTATAGAGCTTAATTTCTTGAGAAATTCAACAGTCATTTTACCAGCAT
AATTTTATCTTAAGGAATAACTAATAGGAAAAGTCAGCTTAATTATTTAAGGCCCTAGTTTCTACATATAATATA
TTGATAGTAATGAAAATCTGCCGTGGAATTAATAAGTAGTAACAATAAACTTCATATTTAGAATGCAAAG
TCTATAAAGAATAATTTTACATGATCCTCAATATCAACTCCAGTTTAAAAAGTGTTATTTTAAACATTTGAAA
CCAAGTACTGTTTAATTTCAATCAGAAGATGCAAATAAATACTTTGATCTATGTTTGATTTTGCTAATAATATTT
GAAGGAGATTGCCTACCAAGGACAAAACAATAAATTTAAAAATCAAACGATTTCTCCATACGCTCATAGTCACAT
ATGGAATTTTGAGAAAATAAAGCATGCTGTCTTTAGGAATTTTATACTTCTTTGTCTTCTTCCTTAATATTTG
CTTCTAGCTGCTCTTGGCAATGATGAATTGTTATGTATGCATTAATGTTTTGCAGCCCCAAAAGTTGTTACATTT
TTCCTATATAAGATCTGTGGAGTGTGTGTTTCAAAGAGAGAACTACAGAAATGTTAAAGCAGGAAAACCTGAATG
TGATGTGCACATTTTCATCCCACATGGACAATGTATGTGTTTTAATAAATGGAATTTTCAGATTCAAAAAAA
AAAAATTC

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FIGURE 331

CTAAAGTGGAGCCCAGCGGCGGGTGTGAGAGTCCGTAAGGAGCAGCTTCCAGGATCCTGAGATCCGGAGCAGCCG
GGGTCCGAGCGGCTCCTCAAGAGTTACTGATCTATGAAATGCGCAGAGAATGGAAAAAATTGTGACCAGAGACGTG
TAGCAATGAACAAGGAACATCATAATGGAAATTTACAGACCCCTCTTCAGTGAATGAAAAGAAGAGGAGGGAGC
GGGAAGAAAGGCAGAATATTGTCTGTGGAGACAGCCGCTCATTACCTTGCAGTATTTTTCTCTGGAAATCCTTG
TAATCTTGAAGGAATGGACCTCAAAATTATGGCATCGTCAAAGCATTGTGGTGTCTTTTTTACTGCTGCTTGCTG
TGCTTATAGCTACGTATTATGTTGAAGGAGTGCATCAACAGTATGTGCAACGTATAGAGAAACAGTTTCTTTTGT
ATGCCACTACTGGATAGGCTTAGGAATTTTGTCTTCTGTTGGGCTTGGAAACAGGGCTGCACACCTTTCTGCTTTATC
TGGGTCCACATATAGCCTCAGTTACATTAGCTGCTTATGAATGCAATTCAGTTAATTTTCCCGAACCCCTATC
CTGATCAGATTATTTGTCCAGATGAAGAGGGCACTGAAGGAACCATTTCTTTGTGGAGTATCATCTCAAAAGTTA
GGATTGAAGCCTGCATGTGGGGTATCGGTACAGCAATCGGAGAGCTGCCTCCATATTTTCATGGCCAGAGCAGCTC
GCCTCTCAGGTGCTGAACCAGATGATGAAGAGTATCAGGAATTTGAAGAGATGCTGGAACATGCAGAGTCTGCAC
AAGACTTTGCCTCCCGGGCCAAACTGGCAGTTCAAAAAGTAGTACAGAAAGTTGGATTTTTTGGAAATTTTGGCCT
GTGCTTCAATTCCAAATCCTTTATTTGATCTGGCTGGAATAACGTGTGGACACTTTCTGGTACCTTTTTTGGACCT
TCTTTGGTGCAACCCTAATTGGAAAAGCAATAATAAAAATGCATATCCAGAAAATTTTTGTTATAATAACATTCA
GCAAGCACATAGTGGAGCAAATGGTGGCTTTTATTGGTGTGTCCCCGGCATAGGTCCATCTCTGCAGAAGCCAT
TTCAGGAGTACCTGGAGGCTCAACGGCAGAAGCTTACCACAAAAGCGAAATGGGCACACCACAGGGAGAAAAC
GGTTGTCTGGATGTTTGAAGTTGGTCTGTGTCTATGGTGTGTTACTTCATCTATCTATCATTAACTCCATGG
CACAAAGTTATGCCAAACGAATCCAGCAGCGGTTGAACTCAGAGGAGAAAACATAAAGTAGAGAAAGTTTAA
ACTGCAGAAATTGGAGTGGATGGGTTCTGCCTTAAATTGGGAGGACTCCAAGCCGGGAAGGAAAATTCCTTTTTC
CAACCTGTATCAATTTTTACAACTTTTTCTGAAAGCAGTTTAGTCCATACTTTGCACTGACATACTTTTTCT
TCTGTGCTAAGGTAAGGTATCCACCCTCGATGCAATCCACCTTGTGTTTTCTTAGGGTGGAAATGTGATGTTTCAGC
AGCAAACTTGCAACAGACTGGCCTTCTGTTTGTACTTTCAAAAGGCCACATGATACAATTAGAGAATTCCCAC
CGCACAAAAAAGTTCCTAAGTATGTTAAATATGTCAAGCTTTTTTAGGCTTGTACAAATGATTGCTTTGTTTTT
CTAAGTCATCAAAATGTATATAAATTATCTAGATTGGATAACAGTCTTGCATGTTTATCATGTTACAATTTAATA
TTCCATCCTGCCCCAACCTTCTCTCCCATCTCAAAAAGGGCCATTTTATGATGCATTGCACACCCTCTGGGG
AAATTGATCTTTAAATTTTGAGACAGTATAAGGAAATCTGGTTGGTGTCTTACAAGTGAGCTGACACCATTTT
TATTCTGTGATTTAGAATGAAGTCTTGAAAAAACTTTATAAAGACATCTTTAATCATTCCAAAATTGTGTCCG
TTTTCTTGAGCGTTTTGATTTTTTACTTTTAGCTTATACCAGCTGAATGGCAGCCTTGCCTAATCCACCTACAAC
AAGAATTTCTTAAGCTTTCTTTTATTGTCATGAGAGAGCCACTACCAAGGCATGTTTTGTTATGCTGAAACTGGG
CTGCTGCATACTGCTAAATGGCACCTCTGGGATTGGCCTACCTGGGGATTTCTTGTTTTGTGAAAACAGGAGAGG
AGAAATATCTCATACAAGTGAAGGATACTGGAGAGAGAAATTACCCATTTCTAAAAAAAACACACTCTGTCTG
TATCTGTGTTAATGTTTTCTAGCATGTACTCTGGTTTCAACAGACACAAATTTATATGTTAACCAGTTTTCTTG
CCGTTCTGTAAGTGTTTTATTCTTAGTGTGATTTTTTCCATTGGGATGTTTTTGATTGAACTTGTTCAATTTGT
TTTGCTTGGGAGGAAAAATAACAATTTTACTTTTTTCTTAAAAA

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FIGURE 332

MAENGKNCQRRVA⁴NKEHHNGNFTDPSSVNEKKRREREERQNI⁵VLWRQPLITLQYFSLEILVILKEWTSKLWHR
QSIVVSFLLLLAVLIATYYVEGVHQYVQRIEKQFLLYAYWIGLGILSSVGLGTGLHTFLLYLGPHIASVTLAAY
ECNSVNFPEPPYPDQIICPDEEGTEGTISLWSIISKVRIEACMWGIGTAIGELPPYFMARAARLSGAEPDDEEYQ
EFEEMLEHAESAQDFASRAKLAVQKLVQKVGFFGILACASIPNPLFDLAGITCGHFLVPFWTFFGATLIGKAIK
MHIQKIFVITFSKHIVEQMVAFIGAVPGIGPSLQKPFQEYLEAQRQKLHHKSEMGRPQGENWLSWMFEKLVVVM
VCYFILSIINSMAQSYAKRIQQRLNSEEKTK

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FIGURE 333

ATGGATCTAAAGACAGCAGTATTTAACGCAGCTCGGGATGGCAAACCTCCGGCTTCTCACCAAATTGTTGGCAAGC
AAATCCAAAAGAGGAGGTTTCCTCCTTGATCTCTGAAAAACAAATGGGGCCACGCCACTCTTGATGGCCGCCAGG
TATGGGCACCTTGACATGGTGGAATTCCTCCTAGAGCAATGCAGTGCCTCCATAGAAGTTGGGGGCTCCGTCAAT
TTTGATGGCGAAACCATTGAGGGGGCTCCCCCTTTATGGGCCGCTTCTGCAGCAGGACATCTGAAGGTGGTCCAG
TCCTTGTTAAATCATGGAGCATCTGTCAACAACACGACTTTAACCAATTCAACTCCTCTTCGAGCTGCGTGTTC
GATGGCCATTTGGAAATAGTGAAGTACCTTGTTAGAACACAAAGCTGATTTGGAAGTGTCAAACCGACATGGGCAT
ACGTGCTTGATGATTTTCATGTTACAAAGGACATAAAGAGATTGCTCAGTATTTACTTGAAAAGGGGCGAGATGTT
AATAGAAAAAGTGTCAAAGGTAATACTGCATTGCATGATTGTGCAGAATCTGGAAGTTTGGACATCATGAAGATG
CTTCTTATGTATTGTGCCAAGATGGAAAAGGATGGTTATGGAATGACTCCCCCTTCTCTCAGCAAGTGTGACTGGT
CACACAAATATTGTGGATTTTCTGACACACCATGCACAGACCAGCAAGACAGAACGTATTAATGCTCTAGAGCTT
CTGGGAGCTACATTTGTAGACAAAAAAGAGATCTGCTTGGGGCTTTGAAATACTGGAAAAAGGCAATGAACATG
AGGTACAGTGATAGGACTAATATTATTAGTAAACCAGTGCCACAGACACTAATAATGGCTTATGATTATGCCAAG
GAAGTGAACAGTGCAGAAGAGCTAGAAGGTCTTAT TGCTGATCCTGATGAGATGAGAATGCAGGCACTATTAATC
AGAGAACGTATTCTTGGTCCTTCTCATCCTGATACCTCTTACTATATTAGATATAGAGGCGCTGTCTATGCAGAC
TCTGGAAATTTCAAACGATGCATCAACCTATGGAAGTATGCTTTGGATATGCAGCAGAGCAATTTGGATCCTTTA
AGCCCAATGACCGCCAGCAGCTTATTATCTTTTGCAGAACTATTCTCCTTTATGCTACAGGATAGGGCTAAAGGC
CTGCTGGGTACTACTGTTACATTTGATGATCTTATGGGCATACTTTGCAAAGCGTCCTTGAAATAGAGCGAGCT
ATCAAACAACTCAGTGTCCAGCTGACCCATTACAGTTAAATAAGGCCCTTTCTATTATTTTGCACCTTAATTTGC
TTGTTAGAGAAAGTTCCTTGTTACTCTAGAACAAGACCATTTCAAAAAGCAGACTATATACAGGTTTCTTAAGCTG
CATCCAAGGGGAAAGAATAACTTCAGCCCTCTTCATCTGGCTGTGGACAAGAATACTACATGTGTAGGGCGGTAC
CCTGTTTGTAAATTTCCATCTCTACAAGTTACTGCAATACTGATAGAATGTGGTGCTGATGTGAACGTCAGAGAC
TCGGATGACAACAGTCCCTGCATATCGCTGCTCTTAACAACCATCCAGACATCATGAATCTCCTTATTAAATCA
GGTGCACATTTTGATGCCACAACTTGACACAAACAACTGCTAGTGAYTTGCTGGATGAGAAGGAAATAGCTAAA
AATTTAATCCAGCCTATAAATCATAACCACATTGCAGTGTCTTGCTGCTCGTGTGCATAGTGAATCATAGAATATAT
TATAAAGGGCATATCCCAGAAAAGCTAGAGACTTTTGTTTCCCTTCATAGATGA

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FIGURE 334

MDLKTAVFNAARDGKLRLLTKLLASKSKEEVSSLI SEKTNGATPLLMAARYGHLDMVEFLLEQCSASIEVGGSVN
FDGETIEGAPPLWAASAAGHLKVVQSLLNHGASVNNTTLTNSTPLRAACFDGHLEIVKYLVEHKADLEVSNRHGH
TCLMISCYKGHKEIAQYLLEKGADVNRKSVKGNTALHDCAESGSLDIMKMLLMYCAKMEKDGYGMTPLLSASVTG
HTNIVDFLTHHAQTSKTERINALELLGATFVDKKRDLLGALKYWKKAMNMRYSDRTNII SKPVPQTLIMAYDYAK
EVNSAEELEGLIADPDEMRMQALLIRERILGPSHPDTSYYIRYRGAVYADSGNFKRCINLWKYALDMQQSNLDPL
SPMTASSLLSFAELFSFMLQDRAKGLLGTTVTTFDDLMGILCKSVLEIERAIKQTQCPADPLQLNKALSIILHLIC
LLEKVPCTLEQDHFKKQTIYRFLKLHPRGKNNFSPLHLAVDKNTTCVGRYPVCKFPSLQVTAILECGADVNVRD
SDDNSPLHIAALNNHPDIMNLLIKSGAHFDATNLHKQTASDLLDEKEIAKNLIQPINHTTLQCLAARVIVNHRIY
YKGHIPEKLETFFVSLHR

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FIGURE 335A

CACGAGGCAGCACTCTCTTCGTCGCTTCGGCCAGTGTGTCTGGGCTGGGCCCTGACAAGCCACCTGAGGAGAGGCT
CGGAGCCGGGCCCCGACCCCGGCGATTGCCGCCCGCTTCTCTCTAGTCTCACGAGGGGTTTCCCGCTCGCACCC
CCACCTCTGGACTTGCCTTCTCTTCTCTTCTCCGCTGTGTGGAGGGAGCCAGCGCTTAGGCCGGAGCGAGCCTGGG
GGCCGCCCGCCGTGAAGACATCGCGGGGACCGATTACCATGGAGGGCGCCGGCGGCGCAACGACAAGAAAAAG
ATAAGTTCTGAACGTGAAAAGAAAAGTCTCGAGATGCAGCCAGATCTCGGCGAAGTAAAGAATCTGAAGTTTTT
TATGAGCTTGCTCATCAGTTGCCACTTCCACATAATGTGAGTTTCGCATCTTGATAAGGCCTCTGTGATGAGGCTT
ACCATCAGCTATTTCGCTGTGAGGAACTTCTGGATGCTGGTGATTGGATATTGAAGATGACATGAAAGCACAG
ATGAATTGCTTTTATTTGAAAGCCTTGGATGGTTTGTATGGTTCTCACAGATGATGGTGACATGATTTACATT
TCTGATAATGTGAACAAATACATGGGATTAAGTCACTTGAAGTAACTGGACACAGTGTGTTTGATTTTACTCAT
CCATGTGACCATGAGGAAATGAGAGAAATGCTTACACACAGAAATGGCCTTGTGAAAAAGGGTAAAGAACAAAAC
ACACAGCGAAGCTTTTTTCTCAGAATGAAGTGACCTAACTAGCCGAGGAAGAACTATGAACATAAAGTCTGCA
ACATGGAAGGTATTGCACTGCACAGGCCACATTACGTATATGATACCAACAGTAACCAACCTCAGTGTGGGTAT
AAGAAACCACCTATGACCTGCTTGGTGCTGATTGTGAACCCATTCTCACCCATCAAATATTGAAATTCCTTTA
GATAGCAAGACTTCTCTCAGTCGACACAGCCTGGATATGAAATTTTCTTATTGTGATGAAAGAATTACCGAATTG
ATGGGATATGAGCCAGAAGAACTTTTAGGCCGCTCAATTTATGAATATTATCATGCTTTGGACTCTGATCATCTG
ACCAAACTCATCATGATATGTTTACTAAAGGACAAGTCACCACAGGACAGTACAGGATGCTTGCCAAAAGAGGT
GGATATGTCTGGGTGAACTCAAGCAACTGTCATATATAACACCAAGAATTCTCAACCACAGTGCATTGTATGT
GTGAATTACGTTGTGAGTGGTATTATTACGACGACTTGATTTTTCTCCCTTCAACAAACAGAATGTGTCCTTAAA
CCGTTTGAATCTTCAGATATGAAAATGACTCAGCTATTACCAAAAGTTGAATCAGAAGATACAAGTAGCCTCTTT
GACAACTTAAGAAGGAACCTGATGCTTTAACTTTGCTGGCCCCAGCCGCTGGAGACACAATCATATCTTTAGAT
TTTGGCAGCAACGACACAGAACTGATGACCAGCAACTTGAGGAAGTACCATTATATAATGATGTAATGCTCCCC
TCACCCAACGAAAAATTACAGAATATAAATTTGGCAATGTCTCCATTACCCACCGCTGAAACGCCAAAGCCACTT
CGAAGTAGTGCTGACCTGCACTCAATCAAGAAGTGCATTAAAATTAGAACCAATCCAGAGTCACTGGAACCTT
TCTTTTACCATGCCCCAGATTACAGGATCAGACACC TAGTCCTCCGATGGAAGCACTAGACAAAAGTTCACCTGAG
CCTAATAGTCCAGTGAATATTGTTTTATGTGGATAGTGATATGGTCAATGAATTCAAGTTGGAATTGGTAGAA
AACTTTTTTGCTGAAGACACAGAAGCAAAGAACCATTCTTCTACTCAGGACACAGATTTAGACTTGGAGATGTTA
GCTCCCTATATCCCAATGGATGATGACTTCCAGTTACGTTCCCTTCGATCAGTTGTCACCATTAGAAAGCAGTTCC
GCAAGCCCTGAAAGCGCAAGTCTCAAAGCACAGTTACAGTATTCCAGCAGACTCAAATACAAGAACCTACTGCT
AATGCCACCCTACCCTGCCACCCTGATGAATTAAGAACAGTGACAAAAGACCGTATGGAAGACATTAAATA
TTGATTGCATCTCCATCTCCTAGCCACATACATAAAGAACTACTAGTGCCACATCATCACCATATAGAGATACT
CAAAGTCGGACAGCCTCACCAACAGAGCAGGAAAAGGAGTCATAGAACAGACAGAAAAATCTCATCCAAGAAGC
CCTAACGTGTTATCTGTGCTTTGAGTCAAAGAAC TACAGTTCCCTGAGGAAGAACTAAATCCAAAGATACTAGCT
TTGCAGAAATGCTCAGAGAAAGCGAAAAATGGAACATGATGGTTCACTTTTTTCAAGCAGTAGGAATTGGAACATTA
TTACAGCAGCCAGACGATCATGCAGCTACTACATCACTTTCTTGAAACGTGTAAAAGGATGCAATCTAGTGAA
CAGAATGGAATGGAGCAAAAGACAATTATTTTAATACCCTCTGATTTAGCATGTAGACTGCTGGGGCAATCAATG
GATGAAAGTGGATTACCACAGCTGACCAGTTATGATTGTGAAGTTAATGCTCCTATACAAGGCAGCAGAAACCTA
CTGCAGGGTGAAGAATTACTCAGAGCTTTGGATCAAGTTAACTGAGCTTTTTTCTTAATTTTCAATTCCTTTTTTGG
ACACTGGTGGCTCACTACCTAAAGCAGTCTATTTATTTTTCTACATCTAATTTTAGAAGCCTGGCTACAATACT
GCACAACTTGGTTAGTTCAATTTTTGATCCCTTTCTACTTAATTTTACATTAATGCTCTTTTTTAGTATGTTCT
TTAATGCTGGATCACAGACAGCTCATTCTCAGTTTTTTGGTATTTAAACCATTGCATTGCAGTAGCATCATTT
TAAAAATGCACCTTTTTATTTATTTATTTTTGGCTAGGGAGTTTATCCCTTTTTTGAATTTTAAAGAAGAT
GCCAATATAATTTTTGTAAGAAGGCAGTAACCTTTTATCATGATCATAGGCAGTTGAAAAATTTTACACCTTTT
TTTTACATTTTACATAAATAATAATGCTTTGCCAGCAGTACGTGGTAGCCACAATTGCACAATATATTTTCTTA
AAAAATACCAGCAGTTACTCATGGAATATATTCTGCGTTTATAAACTAGTTTTTAAGAAGAAATTTTTTTGGC
CTATGAAATTGTTAAACCTGGAACATGACATTGTTAATCATATAATAATGATTCTTAAATGCTGTATGGTTTATT
ATTTAAATGGGTAAAGCCATTTACATAATATAGAAAGATATGCATATATCTAGAAGGTATGTGGCATTATTGGG
ATAAAATTCICAATTCAGAGAAATCATCTGATGTTTCTATAGTCACTTTGCCAGCTCAAAAGAAAACAATACCCT
ATGTAGTTGTGGAAGTTTATGCTAATATTGTGTAAGTATTAACCTAAATGTTCTGCCTACCCTGTTGGTAT

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FIGURE 335B

AAAGATATTTTGAGCAGACTGTAAACAAGAAAAAAAAAATCATGCATTCTTAGCAAAATTGCCTAGTATGTTAAT
TTGCTCAAAATACAATGTTTGATTTTATGCACCTTTGTCGCTATTAAACATCCTTTTTTTCATGTAGATTTCATAA
TTGAGTAATTTTAGAAGCATTATTTTAGGAATATATAGTTGTCACAGTAAATATCTTGTTTTTCTATGTACATT
GTACAAATTTTTCATTCTTTTGCTCTTTGTGGTTGGATCTAACACTAACTGTATTGTTTTGTTACATCAAATAA
ACATCTTCTGTGGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 336

MEGAGGANDKKKISSERRKEKSRDAARSRRSKESEVFYELAHQLPLPHNVSSHLDKASVMRLTISYLVRKLLDA
GDLIEDDMKAQMNC FYLKALDGFVMVLTDDGDMIYISDNVNKYMGLTQFELTGHSVDFDTHPCDHEEMREMLTH
RNLVKKGKEQNTQRSFFLRMKCTLT SRGRTMNIKSATWKVLHCTGHIHVYDTNSNQPCGYKKPPMTCLVLICE
PIPHPSNIEIPLDSKTFLSRHSLDMKFSYCDERITELMGYEPEELLGRSIYEYYHALDSHDLTKTHHDMFTKGQV
TTGQYRMLAKRGGYVWVETQATVIYNTKNSQPQCI VCVNYVVSGIIQHDLIFSLQQTECVLKPVESSDMKMTQLF
TKVESED TSSLFDKLKKEPDAL TLLAPAAGDTIISLDFGSNDTETDDQQLEEVPLYNDVMLPSPNEKLQNINLAM
SPLPTAETPKPLRSSADPALNQEVALKLEPNPESLELSFTMPQIQDQTPSPSDGSTRQSSPEPNPSEYCFYVDS
DMVNEFKLELVEKLFAEDTEAKNPFSTQD TDLDLEMLAPYIPMDDDFQLRSFDQLSPLESSSASPESASPQSTVT
VFQQTQIQEPTANATTTTATTD ELKTVTKDRMEDIKILIASPSPTHIHKETTSATSSPYRDTQSRTASPNRAGKG
VIEQTEKSHPRSPNVLSVALSQRTTVPEEELNPKILALQNAQRKRKMEHDGSLFQAVGIGTLLQQPDDHAATTSL
SWKRVKGCKSSEQNGMEQKTII LIPSDLACRLLGQSMDESGLPQLTSYDCEVNAPIQGSRNLLQGEELLRALDQV
N

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FIGURE 337

GCGGCGGGCGGCAGC**ATG**TCGGTGGCGGGGCTGAAGAAGCAGTTCTACAAGGCGAGCCAGCTGGTCAGTGAGAAG
GTCCGAGGGGCGGAGGGGACCAAGCTGGATGATGACTTCAAAGAGATGGAGAAGAAGGTGGATGTCACCAGCAAG
GCGGTGACAGAAGTGCTGGCCAGGACCATCGAGTACCTGCAGCCCAACCCAGCCTCGCGGGGCTAAGCTGACCATG
CTCAACACGGTGTC**CAAG**ATCCGGGGCCAGGTGAAGAACCCCGGCTACCCGCAGTCGGAGGGGCTTCTGGGCGAG
TGCATGATCCGCCACGGGAAGGAGCTGGGCGGCGAGTCCAAC**TTT**GGTGACGCATTGCTGGATGCCGGCGAGTCC
ATGAAGCGCCTGGCAGAGGTGAAGGACTCCCTGGACATCGAGGTCAAGCAGAACTTCATTGACCCCTCCAGAAC
CTGTGCGAGAAAGACCTGAAGGAGATCCAGCACCACTGAAGAACTGGAGGGCCGCCGCTGGACTTTGACTAC
AAGAAGAAGCGGCAGGGCAAGATCCCCGATGAGGAGCTACGCCAGGCGCTGGAGAAGTTCGAGGAGTCCAAGGAG
GTGGCAGAAACCAGCATGCACAACCTCCTGGAGACTGACATCGAGCAGGTGAGTCAGCTCTCGGCCCTGGTGGAT
GCACAGCTGGACTACCACCGGCAGGCCGTGCAGATCCTGGACGAGCTGGCGGAGAAGCTCAAGCGCAGGATGCGG
GAAGCTTCCTCAGCCCTAAGCGGGAGTATAAGCCCAAGCCCCGGGAGCCCTTTGACCTTGAGAGCCTGAGCAG
TCCAACGGGGGCTTCCCTGCACCACAGCCCCAAGATCGCAGCTTCATCGTCTTTCCGATCTTCCGACAAGCCC
ATCCGGACCCCTAGCCGGAGCATGCCGCCCTGGACCAGCCGAGCTGCAAGGCGCTGTACGACTTCGAGCCCGAG
AACGACGGGGAGCTGGGCTTCCATGAGGGCGACGTATCACGCTGACCAACCAGATCGATGAGAACTGGTACGAG
GGCATGCTGGACGGCCAGTCGGGCTTCTTCCCGCTCAGCTACGTGGAGGTGCTTGTGCCCCCTGCCGCAG**TGACTC**
ACCCGTGTCCCCGCCCGCCCCCTCCGTCCACACTGGCCGGCACCCCCCTGCTGGGTCTCCTGCATTCCACGGAGCC
CCTGCTGCCAGGGCGGTGTCTGAGCCTGCCGGCGCCACCTGGGCCCGGCCCTTGAGGTACTCCCTGAGCAGGAC
CCCACACTTGGGTGGGGGGGCTTATCTGGGTGGGTGGGGATGCCTGTTTACACTAGCGCTGACTCCCAACGGTGA
CGGCTCCCTTCCCCACTCCATGGCGCCAGCCTCCTCCCCCGCTCCCCAACTTCTCGCCCAGCTGGCCGAGGCGGG
GCAACACTAAGGTGCTCTTAGAAACACTAATGTTCTCTGGGGCAGCCCCACCTCCGTCTGACCCGACGGGGG
CCCGGCCCACTGCCTACCCCTCGAGTCCCGCAGCCTTAACAGGATGGGATCGAGGGTCCCCATGGGGTGGCTCAGA
GATAGGACCCTGGTTTTAAATCCCTCCCAGCCTGGTGCTGGTGATGGGCCCTGGCCCTACTCCAGGGCCAATGCA
CCCCCGCCTCACACACGCACTCCTTCTCCTCAAGGCCAGGGCAGAGGGCCTCACCGCCTCCCGGGCCTGCTGTCA
GCTTGCAGCCCCGGGGACAGAGGCCAGCTGGGATCTGCCTGAGGACAGAGAACATGGTCTCCTGCAGGGCCCTGCC
TCCCAAGCCCCGCCCTCAGAAAGCCAAGTACCTTTTCAGCTTTTTAACTGCCCCCATCCCAACCCAGGGAGGCCT
GTGTCACTCTGGCACAAGCTGCCACCACCAGCCACCCACACCCAGCACACCTCACACGGGACCACAGCCG
CGCTGCCGAGGGCCAAGCACAAAGTTCCAGTGAGCGCATGTCCAGCCCTGGTGGCCAGGCTCCCTTGCTGAG
CCGCTGCCACTTCACCTGTGGGAAGTGGCCCCAGCCATCTCCTCTAGACCAAGGCAGGCAGCCCCGACATCTGC
TTCTCTATCGCCCAATGCAAAATCGATGAAATGGGGAGTTCTCTGGGCCAGGCCACATTACATTCCCTCCCT
CTGTGGTCCAGTGAAGCTCCGGACCCAGGCTCTGCTCTGCCCTGCCCTGCACCCCCCTCGTCAGAAGTACATGA
GGGGCGCAGAGATGAGCACACAGCTTTGGGCACGGTCCAGGGCAA**ACTGAAATGTACGCTGAATTTTGTAACA**
GAAGTATTAAATGTCTCTTTCTAC

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FIGURE 338

MSVAGLKKQFYKASQLVSEKVGGAEGTKLDDDFKEMEKKVDVTSKAVTEVLARTIEYLQPNPASRAKLTMLNTVS
KIRGQVKNPGYPQSEGLLGECMIRHGKELGGESNFGDALLDAGESMKRLAEVKDSL DIEVKQNFIDPLQNLCEKD
LKEIQHHLKKLEGRRLDFDYKKKRQGKIPDEELRQALEKFEESSKEVAETSMHNLLET DIEQVSQLSALVDAQLDY
HRQAVQILDELAEKLRMRREASSRKPKEYKPKPREPFDLGEPEQSNGGFPCTTAPKIAASSSFRSSDKPIRTPS
RSMPPLDQPSCKALYDFEPENDGELGFHEGDVITLTNQIDENWYEGMLDGQSGFFPLSYVEVLVPLPQ

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FIGURE 339

GGCGCTGGGCGGCTGCGGCGCGCGGTGCGCGGTGCGTAGTCTGGAGCT**ATGG**TGGTGGTGGCAGCCGCGCCGAAC
CCGGCCGACGGGACCCCTAAAAGTTCTGCTTCTGTGCGGGCAGCCCGCCTCCGCCGCCGGAGCCCCGGCCGGCCAG
GCCCTGCCGCTCATGGTGCCAGCCAGAGAGGGGCCAGCCCGGAGGCAGCGAGCGGGGGGCTGCCCCAGGCGCGC
AAGCGACAGCGCCTCACGCACCTGAGCCCCGAGGAGAAGGCGCTGAGGAGGAAACTGAAAAACAGAGTAGCAGCT
CAGACTGCCAGAGATCGAAAAGAGGCTCGAATGAGTGAGCTGGAACAGCAAGTGGTAGATTTAGAAGAAGAGAAC
CAAAAACTTTTGCTAGAAAATCAGCTTTTACGAGAGAAAACCTCATGGCCTTGTAGTTGAGAACCAGGAGTTAAGA
CAGCGCTTGGGGATGGATGCCCTGGTTGCTGAAGAGGAGGCGGAAGCCAAGGGGAATGAAGTGAGGCCAGTGGCC
GGGTCTGCTGAGTCCGCAGCACTCAGACTACGTGCACCTCTGCAGCAGGTGCAGGCCAGTTGTCACCCCTCCAG
AACATCTCCCCATGGATTCTGGCGGTATTGACTCTTCAGATTCAGAGTCTGATATCCTGTTGGGCATTCTGGACA
ACTTGGACCCAGTCATGTTCTTCAAATGCCCTTCCCCAGAGCCTGCCAGCCTGGAGGAGCTCCCAGAGGTCTACC
CAGAAGGACCCAGTTCCTTACCAGCCTCCCTTTCTCTGTGAGTGGGGACGTCATCAGCCAAGCTGGAAGCCATTA
ATGAAC**TAA**TTTCGTTTTGACCACATATATACCAAGCCCCTAGTCTTAGAGATACCCCTGAGACAGAGAGCCAAG
CTAATGTGGTAGTGAAAATCGAGGAAGCACCTCTCAGCCCCTCAGAGAATGATCACCCCTGAATTCATTGTCTCAG
TGAAGGAAGAACCTGTAGAAGATGACCTCGTTCCGGAGCTGGGTATCTCAAATCTGCTTTCATCCAGCCACTGCC
CAAAGCCATCTTCCTGCCTACTGGATGCTTACAGTGACTGTGGATACGGGGGTTCCTTTCCCCATTTCAGTGACA
TGTCCTCTCTGCTTGGTGTAACCATTCTTGGGAGGACACTTTTGCCAATGAACTCTTTCCCCAGCTGATTAGTG
TCTAAGGAATGATCCAATACTGTTGCCCTTTTCCTTGACTATTACACTGCCTGGAGGATAGCAGAGAAGCCTGTC
TGTACTTCATTCAAAAAGCCAAAATAGAGAGTATACAGTCCTAGAGAATTCCTCTATTTGTTTCAGATCTCATAGA
TGACCCCCAGGTATTGTCTTTTGACATCCAGCAGTCCAAGGTATTGAGACATATTACTGGAAGTAAGAAATATTA
CTATAATTGAGAACTACAGCTTTTAAGATTGTACTTTTATCTTAAAAGGGTGGTAGTTTTCCCTAAAATACTTAT
TATGTAAGGGTCATTAGACAAATGTCTTGAAGTAGACATGGAATTTATGAATGGTTCTTTATCATTTCTCTTCCC
CCTTTTTTGGCATCCTGGCTTGCCCTCAGTTTTAGGTCCTTTAGTTTGCTTCTGTAAGCAACGGGAACACCTGCTG
AGGGGGCTCTTTCCCTCATGTATACTTCAAGTAAGATCAAGAATCTTTTGTGAAATTATAGAAATTTACTATGTA
AATGCTTGATGGAATTTTTTCTGCTAGTGTAGCTTCTGAAAGGTGCTTTCTCCATTTATTTAAACTACCCATG
CAATTAAAAGGTACAATGCAAAAAAAAAAAAAAAAAA

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FIGURE 340

MVVVAAAPNPADGTPKVL LLSGQPASAAGAPAGQALPLMVPAQRGASPEAASGGLPQARKRQRLTHLSPEEKALR
RKLKNRVAAQTARDRKKARMSELEQQVVDLEENQKLLLENQLLREKTHGLVVENQELRQRLGMDALVAEEEEAEA
KGNEVRPVAGSAESAALRLRAPLQQVQAQLSPLQNI SPWILAVLT LQIQSLISCWAFWTTWTQSCSSNALPQSLP
AWRSSQRSTQKDPVPYQPPFLCQWGRHQPSWKPLMN

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FIGURE 341

GGCACGAGGGAGAAAGGAGAGAAAGGAAAGCGCGAGGAGCCGCCACCACCAGCGCAGCAGTCCTGGAGCTGT
GAGGAGATTTCGGGCCGTCAACCTGCCTCCCCTGCGTCCCGCCACCGGCCGCTTCTGTCTCGGACCCATTCCAAC
AATCTCGTAAACATGGTGGATTACTATGAAGTTCTAGGCGTGCAGAGACATGCCTCACCCGAGGATATTAAAAA
GGCATATCGGAAACTGGCACTGAAGTGGCATCCAGATAAAAAATCCTGAGAATAAAGAAGAAGCAGAGAGAAAATT
CAAGCAAGTAGCGGAGGCATATGAAGTGTGTGCGATGCTAAGAAACGGGACATCTATGACAAATATGGCAAAGA
AGGATTAAATGGTGGAGGAGGAGGTGGAAGTCATTTTGACAGTCCATTTGAATTTGGCTTCACATTCCGTAACCC
AGATGATGTCTTCAGGGAATTTTTTGGTGGAAAGGGACCCATTTTTCATTTGACTTCTTTGAAGACCTTTTGAGGA
CTTCTTTGGGAATCGAAGGGGTCCCCGAGGAAGCAGAAGCCGAGGGACGGGGTCGTTTTTCTCTGCGTTCAGTGG
ATTTCCGTCTTTTGAAGTGGATTTTCTTCTTTTGATACAGGATTTACTTCATTTGGGTCACTAGGTACAGGGGG
CCTCACTTCATTCTCTTCCACGTCAATTGGTGGTAGTGGCATGGGCAACTTCAAATCGATATCAACTTCAACTAA
AATGGTTAATGGCAGAAAAATCACTACAAAGAGAATTGTGAGAACGGTCAAGAAAGAGTAGAAGTTGAAGAAGA
TGGCCAGTTAAAGTCCTTAACAATAAATGGTGTGGCCGACGACGATGCCCTCGCTGAGGAGCGCATGCGGAGAGG
CCAGAACGCCCTGCCAGCCAGCCTGCCGGCCTCCGCCCGCCGAAGCCGCCCGGCCCTGCCTCGCTGCTGAGACA
CGCGCCTCACTGTCTCTCTGAGGAGGAGGGCGAGCAGGACCGACCTCGGGCACCCGGGCCCTGGGACCCCTCGC
GTCCGCAGCAGGATTGAAAGAAGGTGGCAAGAGGAAGAAGCAGAAGCAGAGAGAGGAGTGAAGAAGAAGAAGTC
GACCAAAGGCAATCACTAGACCGGACTTGAGGCACGCGGTGCACCCCGACGCTGGCGCTCCACCGTGTCTCGGC
ATGCGGTCTGTGCACACGCGCTAGGTAGCAGCGTGGTTCAGGACTGTCTCGAGGCCACACTCGCTCGGCAGGATTA
TGCGATCACGGATCAGTCAGAGCAGGGTCAGGAGACGGGGCTGACGGCACGGGTGGCGGGACAGACGTTTGGGA
CTTGGCCGCGACTCTCTGCTTCTCTCCAGCTCTCAATCTGCTGCATTTTCTCTAGTGCTTCCGGATCCTCTTCA
TTCTTTTCGGCTACTCAACCACTCCGCATGCTGCTGGAATATTTCTGGCTTTAGAAGTACAGGAGGGCGCAGATG
GCTAACTGAGTAACATTCATGAAATGAGGCTTTCTGTGGCGGCGTAGTGTTTGAATTAGAAGGTAATTCAGTAG
AGTGTAACCTTAGAGAATATTGCAAGTGACACATTGAATCCTGCCCGTCAGGGCACCTTTTCTCAGAGCAATCCG
GCCACACGAATAGAAGGCTGTCTGTGAATCACATCAGATGTAAATCATTCTTCTGTTTACTCTTTTAATTTTCA
TCCTTTGCAGGTAGTGCAAATTCAACTTCAAATATGGTGTAGGTTTTGCTAGATTCCATATTTTTTCTTGGAAT
TTTGCTAATTATTTTTAGCAAAAAATTTTTGCTCAGTGGCACCCCTCCCTAGTGTCCATGGGTTAGGGCCATGCTG
GGGAAAACGGGCCGGTATTTACACACGCGCAAAACACCCAGAGACGGCACAAGGAGGTTGAACATGTTTCAGT
TCGCGAACATTGACTCCTTACGAAAGTCACTTCATTCTAAGTAGATGCGCCACTTCCGGTCATTATTCGTTTG
CATGATGTATTGCTTCTTACGTTTTGTTTTATTGAGCACGGAGTAGAATTCCAGGGCTGCCTTGACTTCTTCC
CTGCAATGCTCCCTCCAGTGACTTTCTTCCCTTTTACATGAGGATCTGCCGTTTATGTTGCTTCTCCTTTGTC
CTCTTGGACTTGAGGGCATTGTGAAAAGCTTTGCTGTGATTTAAAAATGCCAGCAATTTAATCTAGCAGTGTG
AAGCTGGGAATTTTTTGGCGCAATCCATGTAGCAGTGACCCAGGCTTGGGAGCCAGAAACAAGTGTGACCTGGGA
TTTTATTTAACACAACCTGTTGCCAAAGAGTTGGCTTTGTTTATTTGGTTTTGGCGGGGAGAGGAGTGGTATTGA
TGCTTTCTGTGGACAATGTAACCCCTAAACACATCATGTATTTTAAATGCCACCTACATAAATAAACATAAGCAT
ATTGAATACAAAAA

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FIGURE 342

MVDYYEVLGVQRHASPEDIKKAYRKLALKWHPDKNPENKEEAERKFQVAAEYEVLSDAKKRDIYDKYGKEGLNG
GGGGGSHFDSPFEGFTFRNPDDVFREFFGGRDPSFDFFEDPFEDFFGNRRGPRGSRSGTGSFFSAFSGFPSPF
GSGFSSFDTGFTSFGSLGHGGLTSFSSTSFSGSGMGNFKSISTSTKMVNGRKITTKRIVENGQERVEVEEDGQLK
SLTINGVADDDALAEERMRRGQNALPAQPAGLRPPKPPRPASLLRHAPHCLSEEEGEQDRPRAPGPWDPLASAAG
LKEGGKRKKQKQREESKKKKSTKGNH

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FIGURE 343

GGATCGAGGGGACTCTGACCACAGCCTGTGGCTGGGAAGGGAGACAGAGGCGGCGGGCTCAGGGGAAACGAGG
CTGCAGTGGTGGTAGTAGGAAGATGTCGGGCGAGGACGAGCAACAGGAGCAAACCTATCGCTGAGGACCTGGTCGT
GACCAAGTATAAGATGGGGGGCGACATCGCCAACAGGGTACTTCGGTCCTTGGTGGAAGCATCTAGCTCAGGTGT
GTCGGTACTCAGCCTGTGTGAGAAAGGTGATGCCATGATTATGGAAGAAACAGGGAAAATCTTCAAGAAAGAAAA
GGAAATGAAGAAAGGTATTGCTTTTTCCACCAGCAATTCGGTAAATAACTGTGTATGTCACCTTCTCCCTTTGAA
GAGCGACCAGGATTATATTCTCAAGGAAGGTGACTTGGTAAAAATTGACCTTGGGGTCCATGTGGATGGCTTCAT
CGCTAATGTAGCTCACACTTTTGTGGTTGATGTAGCTCAGGGGACCCAAGTAACAGGGAGGAAAGCAGATGTTAT
TAAGGCAGCTCACCTTTGTGCTGAAGCTGCCCTACGCTGGTCAAACCTGGAAATCAGAACACACAAGTGACAGA
AGCCTGGAACAAAGTTGCCCACTCATTAACTGCACGCCAATAGAAGGTATGCTGTCACACCAGTTGAAGCAGCA
TGTCATCGATGGAGAAAAAACCATTTATCCAGAATCCACAGACCAGCAGAAGAAGGACCATGAAAAAGCTGAATT
TGAGGTACATGAAGTATATGCTGTGGATGTTCTCGTCAGCTCAGGAGAGGGCAAGGCCAAGGATGCAGGACAGAG
AACCCTATTTACAAACGAGACCCCTCTAAACAGTATGGACTGAAAATGAAAACCTCACGTGCCTTCTTCAGTGA
GGTGGAAAGGCGTTTTGATGCCATGCCGTTTACTTTAAGAGCATTTGAAGATGAGAAGAAGGCTCGGATGGGTGT
GGTGGAGTGCGCCAAACATGAACTGCTGCAACCATTTAATGTTCTCTATGAGAAGGAGGGTGAATTTGTTGCCCA
GTTTAAATTTACAGTTCTGCTCATGCCCAATGGCCCCATGCGGATAACCAGTGGTCCCTTCGAGCCTGACCTCTA
CAAGTCTGAGATGGAGGTCCAGGATGCAGAGCTAAAGGCCCTCCTCCAGAGTTCTGCAAGTCGAAAAACCCAGAA
AAAGAAAAAAGAAAGGCCTCCAAGACTGCAGAGAATCCCACCAGTGGGGAAACATTAGAAGAAAATGAAGCTGG
GGACTGAAGGTGCGTCCCATCTCCCCAGCTTGCTGCTCCTGCCTCATCCCCTTCCCACCAAACCCAGACTCTGTG
AAGTGCAGTTCTTCTCCACCTAGGACCGCCAGCAGAGCGGGGGGATCTCCCTGCCCCACCCCAAGTTCCCCAACC
CACTCCCCTTCCAACAACAACCAGCTCCAACCTGACTCTGGTCTTGGGAGGTGAGGCTTCCCAACCACGGAAGACTA
CTTTAAACGAAAAAAGAAATTGAATAATAAAATCAGGAGTCAAAATTCATCGTCTTCAAGGCCCTCTTTCTAG
CCTTTTCTACTACTCTCTGCTTGGTCAAGGTTTGTGCCCCACTACAGAACAGGGCTAAATTAGCCACCACCACTG
AAAACCTCAGCCGAATTTTTTTATACCACTCTGACGTCAGCATTTTTT

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FIGURE 344

MSGEDEQQEQTIAEDLVVTKYKMGGDIANRVLRLVEASSSGVSVLSLCEKGDAMIMEETGKIFKKEKEMKKGIA
FPTSISVNNVCVCHFSPKSDQDYILKEGDLVKIDLGHVVDGFIANVAHTFVVDVAQGTQVTGRKADVIKAAHLCA
EAALRLVKPGNQNTQVTEAWNKAHSFNCTPIEGMLSHQLKQHVIDGEKTI IQNPTDQQKKDHEKAEFEVHEVYA
VDVLVSSGEGKAKDAGQRTTIYKRDP SKQYGLKMKTSRAFFSEVERRFDAMPFTLRAFEDEKKARMGVVECAKHE
LLQPFNVLYEKEGEFVAQFKFTVLLMPNGPMRITSGPFEPDLYKSEMEVQDAELKALLQSSASRKTQKKKKKKAS
KTAENPTSGETLEENEAGD

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FIGURE 345

ACGAGACGAAGACGGAACCGGAGCCGGTTGCGGGCAGTGGACGCGGTTCTGCCGAGAGCCGAAGATGGCAGTGAA
CGTATACTCAACGTCAGTGACCAGTGATAACCTAAGTCGACATGACATGCTGGCCTGGATCAATGAGTCTCTGCA
GTTGAATCTGACAAAAGATCGAACAGTTGTGCTCAGGGGCTGCGTATTGTCAGTTTATGGACATGCTGTTCCCTGG
CTCCATTGCCTTGAAGAAAGTGAAATTCCAAGCTAAGCTAGAACACGAGTACATCCAGAACTTCAAAATACTACA
AGCAGGTTTTAAGAGAATGGGTGTTGACAAAATAATTCTGTGGACAAATTAGTAAAAGGAAAGTTTCAGGACAA
TTTTGAATTCGTTCAAGTGGTTCAAGAAGTTTTTCGATGCAAACTATGATGGAAGAAAGACTATGACCCTGTGGCTGC
CAGACAAGGTCAAGAAAGTGCAGTGGCTCCTTCCCTTGTGTGCTCCAGCTCTGAATAAACCGAAGAAACCTCTCAC
TTCTAGCAGTGCAGTCCCCAGAGGCCATCTCAACACAGAGAACCGCTGCGGCTCCTAAGGCTGGCCCTGGTGT
GGTGCGAAAGAACCCTGGTGTGGGCAACGGAGACGACGAGGCAGCTGAGTTGATGCAGCAGGTCAACGTATTGAA
ACTTACTGTTGAAGACTTGGAGAAAGAGAGGGATTCTACTTCGGAAAGCTACGGAACATTGAATTGATTGCGCA
GGAGAACGAGGGGGGAAAACGACCCTGTATTGCAGAGGATTGTAGACATTCTGTATGCCACAGATGAAGGCTTTGT
GATACCTGATGAAGGGGGGCCACAGGAGGAGCAAGAAGAGTATTAAACAGCCTGGACCAGCAGAGCAACATCGGAA
TTCTTCACTCCAAATCATGTGCTTAACTGTAAATACTCCCTTTTGTATCCTTAGAGGACTCACTGGTTTTCTTT
TCATAAGCAAAAAGTACCTCTTCTTAAAGTGCACCTTTCAGACGTTTCACTCCTTTTCCAATAAGTTTGAGTTAG
GAGCTTTTACCTTGTAGCAGAGCAGTATTAACATCTAGTTGGTTCACTGGAAAACAGAGAGGCTGACCGTGGGG
CTCACCATGCGGATGCGGGTCACACTGAATGCTGGAGAGATGTATGTAATATGCTGAGGTGGCGACCTCAGTGGA
GAAATGTAAAGACTGAATTGAATTTTAAGCTAATGTGAAATCAGAGAATGTTGTAATAAGTAAATGCCTTAAGAG
TATTTAAATATGCTTCCACATTTCAAAATATAAAATGTAAATGACAAGAGATTTTGCCTTTGACATTGTGTCT
GGGAAGGAAGGGCCAGACCTTGGAAACCTTGGAACTGCTGTCAACAGGTCTTACAGGGCTGCTTGAACCCTCAT
AGGCCTAGGCTTTGGTCTAAAAGGAACATTTAAAAAGTTGCCCTGTAAAGTTATTTGGTGTCAATTGACCAATTGC
ATCCCAGCTAAAAAGCAAGAGGCATCGTTGCCTGGATAATAGAGGATGTGTTTCAAGCCTGAGATGTTACAGTTG
AAGAGCTTGGTTTTCATTGAGCATTCTCTATTTTTCCAGTTATCCCGAAATTTCTATGTATTATTTTTTGGGGAA
GTGAGGTGTGCCCAGTTTTTTAATCTAACAACCTACTTTTGGGGACTTGCCACATCTCTGGGATTTGAATGGGGA
TTGTATCCCATTTTACTGTCTTTTAGGTTTACATTTACCACGTTTCTCTTCTCTGCTCCCTTGCCCACTGGGAC
TCCTCTTTGGCTCCTTGAAGTTTGCTGCTTAGAGTTGGAAGTGCAGCAGGCAGGTGATCATGCTGCAAGTTCTTT
CTGGACCTCTGGCAAAGGGAGTGGTCAGTGAAGGCCATCGTTACCTTGGGATCTGCCAGGCTGGGGTGTTCGG
TATCTGCTGTTTACAGCTCTCCACTGTAATCCGAATACTTTGCCAGTGCCTAATCTCTTTGGAGATAAAATTCA
TTAGTGTGTTACTAAATGTTAATTTTCTTTTGGGAAAATACAGTACCGTGTCTGAATTAATTATTAATATTTAA
AATACTTCATTCCCTTAACTCTCCCTCATTGCTTTGCCACAGCCTATTCAGTTCCTTTGTTTGGCAGGATTCTG
CAAAATGTGTCTCACCCACTACTGAGATTGTTTCAGCCCCTGATGTATTGTATTGATTGTTTCTGGTGGTAGCT
TGTCTGAAATGTGTGTAGAAAGCAAGTATTTTATGATAAAAATGTTGTGTAGTGCATGCTCTGTGTGGAATTCA
GAGGAAAACCCAGATTCAGTGATTAACAATGCCAAAAATGCAAGTAACTAGCCATTGTTCAAATGACAGTGGTG
CTATTTCTCTTTTGTGGCCTTTTAGACTTTTGTGCCCCTAAAATTCCATTTTATTGGGAACCCATTTTCCACCTG
GTCTTTCTTGACAGGGTTTTTTTCTACTTTAAACAGTTTCTAAATAAAATTCTGTATTTCAAAA

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FIGURE 346

MAVNVYSTSVTSDNLSRHDMLAWINESLQLNLTKIEQLCSGAAYCQFMDMLFPGSIALKKVKFQAKLEHEYIQNF
KILQAGFKRMGVDKIIPVDKLVKGKFQDNFEFVQWFKKFFDANYDGKDYDPVAARQQQETAVAPSLVAPALNKPK
KPLTSSSAAPQRP ISTQRTAAAPKAGPGVVRKNPGVGNNGDDEAAELMQQVNVKLKTVEDLEKERDFYFGKLRNIE
LICQENEGENDPVLQRIVDILYATDEGFVIPDEGGPQEEQEY

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FIGURE 347

CGGAACGTGGTTGGGGAGGGGGGGGTGGGGGGGACTCTAGACAGCTGAGGCGCGAAAGCATGAGTCCTCGGCTCT
TCCTCCTCCTTCTCCGGGACCCGCTCTCTGCCTCCCTCTCCAACGCCCGGATGATCTGAGCCGCGAGGGCGCCGA
CAGCCGGGGGCCCCGGACGCAGCCCGGCTCCTCCCCCTCCTCCGCCCTTCCCCAGCCTGACCTGGCCCCGCCGCTGC
AGCGGTGACCCCTCCCCCGGCTGCCGCCGTCGCCGCCGCGGTGACCCCTCCCCGGCTGCCGCCGCCGCCGCTC
GGCCGACCAGGGACCTGCCCGCTGCGGCTGCTCCGGACCTAGAGGATCAAGACATAATGGGAGCATTTTTAGAC
AAGCCAAAGATGGAAGAGCATAATGCCAGGGGAGGGTAATGGGTTGCGATATGGGCTAAGCAGCATGCAAGGC
TGGCGTGTGAAATGGAGGATGCACATACGGCTGTGATCGGTTTGCCAAGTGGAATTGAATCGTGGTCATTCTTT
GCTGTGTATGATGGGCATGCTGTTCTCAGGTTGCCAAATACTGCTGTGAGCATTGTGTTAGATCACATCACC
AACCAGGATTTTAAAGGGTCTGCAGGAGCACCTTCGTGGAAGATGTAAAGATGGAATCAGAACAGGTTTCTG
GAGATTGATGAACACATGAGAGTTATGTCAGAGAAGAAACATGGTGAGATAGAAGTGGGTCAACAGCTGTAGGT
GTCTTAATTTCTCCCAACATACTTATTTCACTAAGTGTGGAGACTCAAGAGGTTTACTTTGTAGGAACAGGAAA
GTTCAATTTCTTACACAAGATCACAACCAAGTAATCCGCTGGAGAAAGAACGAATTCAGAATGCAGGTGGCTCT
GTAATGATTTCAGCGTGTGAATGGCTCTCTGGCTGTATCGAGGGCCCTTGGGGATTTTGATTACAAATGTGTCCAT
GGAAAAGGTCTTACTGAGCAGCTTGTCTCACCAGAGCCTGAAGTCCATGATATTGAAAGATCTGAAGAAGATGAT
CAGTTCATTATCCTTGCATGTGATGGTATCTGGGATGTTATGGGAAATGAAGAGCTCTGTGATTTTGTAAAGATCC
AGACTTGAAGTCACTGATGACCTTGAGAAAGTTTGCAATGAAGTAGTCGACACCTGTTTGTATAAGGGAAGTCGA
GACAACATGAGTGTGATTTTGTCTGTTTCCAAATGCACCCAAAGTATCGCCAGAAGCAGTGAAGAAGGAGGCA
GAGTTGGACAAGTACCTGGAATGCAGAGTAGAAGAAATCATAAAGAAGCAGGGGGAAGGCGTCCCCGACTTAGTC
CATGTGATGCGCACATTAGCGAGTGAGAACATCCCCAGCCTCCCACCAGGGGGTGAATTGGCAAGCAAGAGGAAT
GTTATTGAAGCCGTTTACAATAGACTGAATCCTTACAAAAATGACGACACTGACTCTACATCAACAGATGATATG
TGGTAAACTGCTCATCTAGCCATGGAGTTTACCTTCACCTCCAAAGGAGAGTACAGCTCAACTTTGTTGAAACT
TTTAACATCCATCCTCAACTTTAAGGAAGGGGATATGACATGGGTGAGAATGATTACATCAGAGAACTTCAGCAG
TACAACAGCTAGCCCAGAACTGATTTTTTTTTTTTTTTTTTTTGTAAATTTGAGACTTATGTAAGCGTGATTTC
AACCATAATTCGTGTTGTAAATCAGACTCCAGCAATTTTGTGTTGATGATTTGTTTTTTTGTAAAGTGTAATTG
TCCTTGTACAAATGCTCATATTTAATTATGAACTGCTTTAAATCACTATCAAAGTTACAAGAAATGTTTGGCTT
ATTGTGTGATGCAACAGATATATAGCCCTTTCAGTCAATGTTGTGTTTGGACTTGGGGTTGGAACAGGGAGAGCA
GCAGCCATGTCAGCTACACGCTCAAATGTGCAGATGATTATGGAATAACCTCAAATCTTACAAAGCTGAACA
TCCAAGGAGTTATTGAAACTATCTTAAATGTTCTTGGTAGGGGAGTTGGCATTGTTGATAAAGCCAGTCCCTTC
ATTTAACTGTCTTTTCCAGGATGTTCCCTTCGTTGTTTCCATGAGTATTGCAGGTAATAATACAGTGTGTTCCATAAG
AATCTCAATCTTGGGGCTAAATGCCTTGTCTTTCACCTCTTTTCAAGTCCTTACATTTAATTACTAATTGAT
AAGCAGCAGCTTCCTACATATAGTAGGAACTGCCACATTTTGTCTATCATGATTGGCTGGGCCTGCTGCTGTT
CTAGTAAGATATTCTGAATTC

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FIGURE 348

MGAFLDKPKMEKHNAQQGQGNGLRYGLSSMQGWRVEMEDAHTAVIGLPSGLESWSFFAVYDGHAGSQVAKYCCEHL
LDHITNNQDFKGSAGAPSVENVKNGIRTGFLEIDEHMRVMSEKKHGADRSGSTAVGVLISPQHTYFINGDSRGL
LCRNRKVHFFTQDHKPSNPLEKERIQNAGGSVMIQRVNGSLAVSRALGDFDYKCVHGKGPTQLVSPEPEVHDIE
RSEEDDQFIIILACDGIWDVMGNEELCDFVRSRLEVTDDEKVCNEVVDTCCLYKGSRDNMSVILICFPNAPKVSPE
AVKKEAELDKYLECRVEEIIKKQGEGVPDLVHVMRTLASENIPSLPPGGELASKRNVIEAVYNRLNPYKNDDTDS
TSTDDMW

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FIGURE 349

AGAGAGCCGAGCTCTGGAGCCTCAGCGAGCGGAGGAGGAGGCGCAGGGCCGACGGCCGAGTACTGCGGTGAGAGC
CAGCGGGCCAGCGCCAGCCTCAACAGCCGCCAGAAGTACACGAGGAACCGGCGGCGGCGTGTGCGTGTAGGCCCG
TGTGCGGGCGGCGGCGGCGGAGGAGCGCGGAGCGGCAGCCGGCTGGGGCGGGTGGCATCATGGACGAGAAGGTGT
TCACCAAGGAGCTGGACCAGTGGATCGAGCAGCTGAACGAGTGCAAGCAGCTGTCCGAGTCCCAGGTCAAGAGCC
TCTGCGAGAAGGCTAAAGAAATCCTGACAAAAGAAATCCAACGTGCAAGAGGTTTCGATGTCCAGTTACTGTCTGTG
GAGATGTGCATGGGCAATTTTCATGATCTCATGGAAGTGTGTTAGAATTGGTGGCAAATCACCAGATACAAATTACT
TGTTTATGGGAGATTATGTTGACAGAGGATATTATTCAGTTGAAACAGTTACACTGCTTGTAGCTCTTAAGGTTT
GTTACCGTGAACGCATCACCATTCTTCGAGGGAATCATGAGAGCAGACAGATCACACAAGTTTATGGTTTCTATG
ATGAATGTTTAAGAAAATATGGAATGCAAATGTTTGGAAATATTTTACAGATCTTTTGTACTATCTTCCTCTCA
CTGCCCTGGTGGATGGGCAGATCTTCTGTCTACATGGTGGTCTCTCGCCATCTATAGATACTGGATCATATCA
GAGCACTTGATCGCCTACAAGAAGTTCCCATGAGGGTCCAATGTGTGACTTGCTGTGGTCAGATCCAGATGACC
GTGGTGGTTGGGGTATATCTCCTCGAGGAGCTGGTTACACCTTTGGGCAAGATATTTCTGAGACATTTAATCATG
CCAATGGCCTCACGTTGGTGTCTAGAGCTCACCAGCTAGTGATGGAGGGATATAACTGGTGCCATGACCGGAATG
TAGTAACGATTTTCAGTGCTCCAACTATTGTTATCGTTGTGGTAACCAAGCTGCAATCATGGAACCTTGACGATA
CTCTAAAATACTCTTTCTTGCAGTTTGACCCAGCACCTCGTAGAGGCGAGCCACATGTTACTCGTCGTACCCAG
ACTACTTCCTGTAATGAAATTTTAACTTGTACAGTATTGCCATGAACCATATATCGACCTAATGGAAATGGGAA
GAGCAACAGTAACTCCAAAGTGTGAGAAAATAGTTAACATTCAAAAACTTGTTTTACATGGACCAAAAGATGT
GCCATATAAAAATACAAAGCCTCTTGTCATCAACAGCCGTGACCACTTTAGAATGAACCAGTTCATTGCATGCTG
AAGCGACATTGTTGGTCAAGAAACCAGTTTCTGGCATAGCGCTATTTGTAGTTACTTTTGCTTTCTCTGAGAGAC
TGCAGATAATAAGATGTAAACATTAACACCTCGTGAATACAATTTAACTTCCATTTAGCTATAGCTTTACTCAGC
ATGACTGTAGATAAGGATAGCAGCAAACAATCATTGGAGCTTAATGAACATTTTAAAAATAATTACCAAGGCCT
CCCTTCTACTTGTGAGTTTGAATTTGTTCTTTTTATTTTCAGGGATACCGTTTAATTTAATTATGATTTGTC
TGCACTCAGTTTATTCCCTACTCAAATCTCAGCCCCATGTTGTTCTTTGTTATTGTCAGAACCTGGTGAGTTGTT
TTGAACAGAACTGTTTTTTCCCTTCTGTAAGACGATGTGACTGCACAAGAGCACTGCAGTGTTTTTCATAATA
AACTTGTGAACTAAGAACTGAGAAGGTCAAATTTTAATTGTATCAATGGGCAAGACTGGTGCTGTTTTATTAAAA
AGTTAAATCAATTGAGTAAATTTTAGAATTTGTAGACTTGTAGGTAAAATAAAAAATCAAGGGCACTACATAACCT
CTCTGGTAACTCCTTGACATTCTTCAGATTAACTTCAGGATTTATTTGTATTTACATATTACAATTTGTCACAT
TGTTGGTGTGCACTTTGTGGGTTCTTCCTGCATATTAACCTGTTTGTAAAGAAAGGAAATCTGTGCTGCTTCAGTA
AGACTTAATTGTAAAACCATATAACTTGAGATTTAAGTCTTTGGGTTGTGTTTTAATAAAACAGCATGTTTTCAG
GTAGAG

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FIGURE 350

MDEKVFTKELDQWIEQLNECKQLSESQVKS LCEKAKEILTKESNVQEVRC PVTVC GDVHGQFHDLME LFRIGGKS
PDTNYLFMGDYVDRGYYSVETVTLLVALKVRYRERITILRGNHESRQITQVYGFYDECLRKYG NANVWKYFTDLF
DYLPLTALVDGQIFCLHGGLSPSIDTLDHIRALDRLQEV PHEGPMCDLLWSDPDDRGGWGISP RGAGYTFGQDIS
ETFNHANGLTTLVSRAHQLVMEGYNWCHDRNVVTIF SAPNYCYRCGNQAAIMELDDTLKYSFLQFDPAPRRGEPHV
TRRTPDYFL

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FIGURE 351

ATGTCTCTTGTCAGCTGTCTTTCAGAAGACCTGGTGGGGCAAGTCCGTGGGCATCATGTTGACCGAGCTGGAGAA
AGCCTTGAACCTCTATCATCGACGTCTACCACAAGTACTCCCTGATAAAGGGGAATTTCCATGCCGTCTACAGGGA
TGACCTGAAGAAATTGCTAGAGACCGAGTGTCTCAGTATATCAGGAAAAAGGGTGCAGACGTCTGGTTCAAAGA
GTTGGATATCAACACTGATGGTGCAGTTAACTTCCAGGAGTTCCTCATTCTGGTGATAAAGATGGGCGTGGCAGC
CCACAAAAAAGCCATGAAGAAAGCCACAAAGAGTAGCTGAGTTACTGGGCCCAGAGGCTGGGCCCTGGACATG
TACCTGCAGAATAATAAAGTCATCAATACCTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 352

MLTELEKALNSIIDVYHKYSLIKGNFHAVYRDDLLKKLLETCPQYIRKKGADVWFKELDINTDGAVNFQEFLILV
IKMGVAAHKKSHKE

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FIGURE 353

CAAGAGAGAGAGAGAGGTGCAAGCCCCAAAGCGAGCGACATGTCCCTTTGGGGAGCAGTCCCTCTGCACCCCAGA
GTGAGGAGGACGCAGGGGTTCAGAGGTGGCTACAGGGCAGGCAGAGGAGGCACCTGTAGGGGGTGGTGGGCTGGTG
GCCCAGGAGAAGTCAGGAAGGGAGCCCAGCTGGTGACAAGAGAGCCCAGAGGTGCCTGGGGCTGAGTGTGAGAGC
CCGGAAGATTTTCAGCCATGCCTCACAGCTCCGACAGCAGTGACTCCAGCTTCAGCCGCTCTCCTCCCCCTGGCAA
ACAGGACTCATCTGATGATGTGAGAAGAGTTTCAGAGGAGGGAGAAAAATCGTATTGCCGCCCAGAAGAGCCGACA
GAGGCAGACACAGAAGGCCGACACCCTGCACCTGGAGAGCGAAGACCTGGAGAAACAGAACGCGGCTCTACGCAA
GGAGATCAAGCAGCTCACAGAGGAAGTGAAGTACTTCACGTCGGTGCTGAACAGCCACGAGCCCCTGTGCTCGGT
GCTGGCCGCCAGCACGCCCTCGCCCCCGAGGTGGTGTACAGCGCCACGCATTCCACCAACCTCATGTCAGCTC
CCCGCGCTTCCAGCCCTGAGCCTCCGATGCGGGGAGAGCAGAGCCTCGGGAGGGGCACACAGACTGTGGCAGAGC
TGCGCCCATCCCGCAGAGGCCCTGTCCACCTGGAGACCCGGAGACAGAGGCCTGGACAAGGAGTGAACACGGGA
ACTGTCACGACTGGAAGGGCGTGAGGCCTCCCAGCAGTGCCGCAGCGTTTCGAGGGGCGTGTGCTGGACCCACC
ACTGTGGGTTGCAGGCCCAATGCAGAAGAGTATTAAGAAAGATGCTCAAGTCCCATGGCACAGAGCAAGGCGGGC
AGGGAACGGTTATTTTTCTAAATAAATGCTTTAAAGA

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FIGURE 354

MPHSSDSSDSSF SRSPPPGKQDSSDDVRRVQRREKNRIAAQKSQRQTQKADTLHLESEDLEKQNAALRKEIKQL
TEELKYFTSVLNSHEPLCSVLAASTPSPPEVVYSAHAFHQPHVSSPRFQP

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FIGURE 355

GTT CAGCGCCGGCGCCGGTGTGCGAGCCGCGGCAGAGTGAGGCAGGCAACCCGAGGTGCGGAGCGACCTGCGGAG
GCTGAGCCCCGCTTTCTCCAGGGTTTCTTATCAGCCAGCCGCGCTGTCCCCGGGGGAGTAGGAGGCTCCTGAC
AGGCCGCGGCTGTCTGTGTGTCCTTCTGAGTGTGAGGAAACGGCCAGACCCGCGGGCCGGAGCAGAACGCGGC
CAGGGCAGAAAGCGGCGGCAGGAGAAGCAGGCAGGGGGCCGGAGGACGCAGACCGAGACCCGAGGCGGAGGCGGA
CCGCGAGCCGCGCCATGTCGGTGGTGGGGTTGGACGTGGGCTCGCAGAGCTGTACATCGCGGTAGCCCGGGCCGG
GGGCATCGAGACCATCGCCAATGAGTTCAGCGACCGGTGCACCCCGTCAGTCATATCATTGGATCAAAAAATAG
AACAATCGGAGTTGCAGCCAAAAATCAGCAAATCACTCATGCAAACAATACGGTGTCTAACTTCAAAAGATTTC
TGGCCGAGCATTCAACGACCCCTTCATTCAAAGGAGAAGGAAAACTTGAGTTACGATTTGGTTCCATTGAAAA
TGGTGGAGTTGGAATAAAGGTAATGTACATGGGTGAAGAACATCTATTTAGTGTGGAGCAGATAACAGCCATGTT
GTTGACTAAGCTGAAGGAACTGCTGAAAACAGCCTCAAGAAACCAGTAACAGATTGTGTTATTTTCAGTCCCTC
CTTCTTTACAGATGCTGAGAGGCGATCTGTGTTAGATGCTGCACAGATTGTTGGCCTAACTGTTTAAAGACTTAT
GAATGACATGACAGCTGTTGCTTTGAATTACGGAATTTATAAGCAGGATCTCCCAAGCCTGGATGAGAAACCTCG
GATAGTGGTTTTTGTGATATGGGACATTCAGCTTTTCAAGTGTCTGCTTGTGCTTTTAAACAAGGGAAAATTGAA
GGTACTGGGAACAGCTTTTGTATCCTTTCTTAGGAGGAAAAAACTTCGATGAAAAGTTAGTGGAACTTTCTGTGC
AGAATTTAAACTAAGTACAAGTTGGATGCAAAATCCAAAATACGAGCACTCCTACGTCTGTATCAGGAATGTGA
AAAAGTGAAGAAAGCTAATGAGCTCTAACAGCACAGACCTTCCACTGAATATCGAATGCTTTATGAATGATAAAGA
TGTTTTCCGGAAAGATGAACAGGTCACAATTTGAAGAAGTCTGTGCTGAAGTCTGCAAAAGATAGAAGTACCCCT
TTATTCAGTGTGGAAACAACTCATCTCAAAGTAGAAGATGTGAGTGCAGTTGAGATTGTTGGAGGCGCTACACG
AATTCCAGCTGTGAAGGAAAGAAATTGCCAAATTTCTTGGAAAAGATATTAGCACAACTCAATGCAGATGAAGC
AGTAGCCAGAGGATGTGCATTACAGTGTGCAATACCTTCCCGGCATTTAAAGTTAGAGAATTTCCGTCACAGA
TGCAGTTCTTTTCCAATATCTCTGATCTGGAACCATGATTGAGAAGATACTGAAGGTGTTGATGAAGTCTTTAG
TCGAAACCATGCTGCTCCTTTCTCCAAAGTTCTCACCTTTCTGAGAAGGGGGCCTTTGAGCTAGAAGCTTTCTA
TTCTGATCCCCAAGGAGTTCCATATCCAGAAGCAAAAATAGGCCGCTTTGTAGTTCAGAAATGTTTCTGCACAGAA
AGATGGAGAAAAATCTAGAGTAAAAGTCAAAGTGCAGTCAACACCCATGGCATTTCACCATCTCTACGGCATC
TATGGTGGAGAAAGTCCCAACTGAGGAGAATGAAATGTCTTCTGAAGCTGACATGGAGTGTCTGAATCAGAGACC
ACCAGAAAACCCAGACACTGATGCAAAATGAAAAAAAGTTGACCAGCCTCCAGAAGCTAAAAAGCCCAAAATAAA
GGTGGTGAATGTTGAGCTGCCTATTGAAGCCAAGTGGTCTGGCAGTTAGGGAAAGACCTTCTTAACATGTATAT
TGAGACAGAGGGTAAGATGATAATGCAAGATAAATGGAAAAAGAAAGGAATGATGCTAAAAATGCAGTTGAGGA
ATATGTGTATGAGTTCAGAGACAAGCTGTGTGGACCATATGAAAAATTTATATGTGAGCAGGATCATCAAAATTT
TTTGAGACTCCTCACAGAACTGAAGACTGGCTGTATGAAGAAGGAGAGGACCAAGCTAAACAAGCATATGTTGA
CAAGTTGGAAGAATTAATGAAAAATGGCACTCCAGTTAAAGTTCCGTTTCAGGAAGCTGAAGAACGGCCAAAAAT
GTTTGAAGAACTAGGACAGAGGCTGCAGCATTATGCCAAGATAGCAGCTGACTTCAGAAATAAGGATGAGAAATA
CAACCATATTGATGAGTCTGAAATGAAAAAAGTGGAGAAGTCTGTTAATGAAGTGTGAATGGATGAATAATGT
CATGAATGCTCAGGCTAAAAAGAGTCTTGATCAGGATCCAGTTGTACGTGCTCAGGAAATTAACAAAAATCAA
GGAATTGAACAACACATGTGAACCCGTTGTAACACAACCGAAACCAAAATTTGAATCACCCTAACTGGAAAGAAC
TCCAAATGGCCCAATATTGATAAAAAGGAAGAAGATTTAGAAGACAAAAACAATTTTGGTGCTGAACCTCCACA
TCAGAATGGTGAATGTTACCCTAATGAGAAAAATCTGTTAATATGGACTTGGACTAGATAACCTTAAATTGGCC
TATTCCTTCAATTAATAAAATATTTTGGCATAGTATGTGACTCTACATAACATACTGAAACTATTTATATTTTCT
TTTTTTAAGGATATTTAGAAATTTTGTGATTATATGGAAGAAAGAAAAAGCTTAAAGTCTGTAGTCTTTATGAT
CCTAAAAGGGAAAAATTGCCCTTGGTAACTTTTCAGATTCCGTGGAATTTGTGAATTCATACTAAGCTTTCTGTGCAG
TCTCACCATTTGCATCACTGAGGATGAACTGACTTTTGTCTTTTGGAGAAAAAACTGTACTGTTGTTCAAGA
GGGCTGTGATTAAATCTTTAAGCATTGTTTCTGCAAGGTAGTTTCTTGCATTTTGTCTCCATTGAGCATG
TGTGTGGGTGTGGATGTTTATAAACAAGACTAAGTCTGACTTCATAAGGGCTTTCTAAAACCATTTCTGTCCAAG
AGAAAATGACTTTTTGCTTTGATATTAATAATCAATGAGTAAACAAAAGCTAGTCAAATGTGTTAGCAGCATG
CAGAACAAAACCTTTAACTTTCTCTCTCACTATACAGTATATTGTCAATGTGAAGTGTGGAATGGAAGAAATG
TCGATCCTGTTGTAAGTATTGTGAACACTTTTATGAGCTTTAAATAAAGTTTCATCTTATGGTGTCAATTTCT

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FIGURE 356

MSVVGLDVGSQSCYIAVARAGGIETIANEFSDRCTPSVISFGSKNRTIGVAAKNQQITHANNTVSNFKRFHGRAF
NDPFIQKEKENLSYDLVPLKNGGVGIKVMYMGEELHFSVEQITAMLLTKLKETAENSLKKPVTDCVISVPSFFTD
AERRSVLDAAQIVGLNCLRLMNDMTAVALNYGIYQDLPSLDEKPRIVVFVDMGHSAFQVSACAFNKGKLVLT
AFDPFLGGKNFDEKLVEHFCAEFKTKYKLDKSKIRALLRLYQECEKLKKLMSSNSTDLPLNIECFMNDKDVSGK
MNRSQFEELCAELLQKIEVPLYSLLEQTHLKVEDVSAVEIVGGATRIPAVKERIAKFFGKDISTTLNADEAVARG
CALQCAILSPAFAKVPREFSVTDVFPFISLIWNHDSDETEGVHEVFSRNHAAPFSKVLTLFRRGPFELEAFYSDPQ
GVPYPEAKIGRFVVQNVSAQKDGEKSRVKVKVRVNTHGIFTISTASMVEKVPTEENEMSSEADMECLNQRPPENP
DTDANEKKVDQPPEAKPKIKVVNVELPIEANLVWQLGKDLLNMYIETEGKMIMQDKLEKERNDAKNAVEEYVYE
FRDKLCGPYEKFIGEQDHQNFRLRLTETEDWLYEEGEDQAKQAYVDKLEELMKIGTPVKVRFQAEERPKMFEEEL
GQRLQHYAKIAADFRNKDEKYNHIDSEMKKVEKSVNEVMEWMNNVMNAQAKKSLDQDPVVRAQEIKTKIKELNN
TCEPVVTQPKPKIESPKLERTPNNGPNIDKKEEDLEDKNNFGAEPHQNGECYPNEKNSVNMDLD

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FIGURE 357

AGGAAATGGTTTCTGGAAAACGTTAGTAAGGTCAGTTTTTAAACACTGAATCCAAGGTTGTCTTCTGGAATATCC
AAATTGGTTATGACCAGAATGTGATTCATTATACTAAGCTAAAGGAATAGATTAAAGAATTAGCAACAGTGGCCG
GGTGCAGTGGCTCATGCCTGTAACCCAGCACTTTGGGGGAGGCCAGGTGGGTGGATCATTGAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGTGAAACCTAAAAATACAAAATTAGCCAGGTGTGGTGGCAGGTGCTTGTAAT
TCCCAGCTGCTTGGGAGGCTGAAGCAGGAGAATTGCTTGAACCCGAGGCAGGGGTTGCAGTGAGCCAAGATCAC
ACCATTGCACTCCAGCCTGGGTGGCAGAGTGAGACTCTGTCTCAAAAATTAAAAAGCAACAGTGTATATGCAATA
GTTGCAAGATGTAAGATCACCCAAAGAGTATGCAGAGGGAAATGAGGGACAGAACCCAGAAATATTAATACCCAG
GGAGTGAACAGGAGGAGGACCCCAAGAAGTTACTGAGTCAGATTTTTCCCACTCATCCAGGTGAAAGTTTAGGTC
AATAATGTGAAATACCAGAGGGATTAAATGTCTACAGAAATAAAACCATGTCTCACATTAAGACAAACAAGTAGG
TTGGAGGGATATTTTGAAGGCAAGGTGATATTAACTTTATTCTGAAAGTAGTTTGTAGAGAAAAGAGGCATGA
TAAGAGTTGCAGTTAACTGATTGGAACCTATGCAGCAGATGAAACTGGAATAAAGGAACTCATCAGGAAATGAT
TATAGTAATAAGGGCCAGAAATAAGGGCTTGCTTGCCTGAACTAAAAACAAAGAGGATACAAAGGTTCTAGAAAT
ATTTCAAAGGAATTAGCTTTAATTCAGCAATACTCATTGAGAATCACCTATGCACCTGGCTCTGAAGATGAAGTG
CTGAGTAACTTAGACATGGACCCTGCTATCATGGAGATGGCAGATTATTGGTCAGAATGCTCTTACCTGTCATT
GTAGCAATTTTGTAGATCCTTAATACCTCTGAATTGCTAATAAACTTGTTTTGGCTGAAAAAATAGTCCTGTGA
ATTTTACCATGCAGTTAAATAAGAACTAAAAGCAAACCTAAATACCACCAAAAAGGTTAGTAGTCTGTTATATG
CATTAGCCTTAATCTAAGGAAATATTTTATTATAGGTCTCCTTGAAGAAAATGATATTTTCAGGAATGCTCAAGC
AGGTGTTCTCATCAGCACTAATAGTCATCCAATCTTAAGGAAAAACAGAATATTTGATGGATTGCGGCAGGTAT
TGAAATTACAAATCACGCAACTGCAACACTAGAAGGCAATCAGATTTTTTAACAACCGGTTTGAGAGCTTATTTTT
AGCATCTGGTGTTAATGTGACAATGAAAGATAACAAAATAATGAACAATCAAGATGCCATAGAAAAGGCTGTTAG
TAGAGGCCAATGTTTATATAAAAATATCAAGTTATACCAGCTATCCCATGCATGATTTCTACAGATGTCATACTTG
TAACACCACAGATCGAAATGCCATATGTGTGAACCTGCATTAAGAAGTGCCATCAGGGACATGATGTAGAGTTTAT
TAGACATGATAGGTATGTAGCACACTTGCTTGATATATTACCCAATTACTTTCCCCCTCACTTTTCTAATATTTG
GGTTTTCATTTTGTCTTTAGGTTTTTCTGTGACTGTGGTGCTGGAACACTGTCTAATCCTTGACATTAGCTGGTGA
GCCTACACATGATACAGATACACTATATGACTCTGCTCCACCTATAGAATCTAATAACATTGCAGCACAACTGAAT
TCCTTCCCTAAAGAAAAAGTCCTGCCATTGTAACATCATAACTTAAACACTTTTTTGAAGAAGATTTAAAATA
TTTGCCCATGCTACAGGAAGAGACTGTATTAATAATGGATACACAAGGTCAGTTGACACTATGAAGCTCAAGCTA
CCAAAAAGAAAGTGGAATATATGACTCAGGATCTCAAAGCTGGGTGTTTTAGCATTACTGTGTAAAGACTTGA
AGGGACAGAAGTGAAGAAAAAAGCTGCAATTTTGTAAGATACCAACTTCTGAAAAGCTGGTGTTTTACAACCT
AGCATTGAATGCAGTCCAATTTGCAGTAGTAATCTCAATAGACAAGCAGCTTTGTTGCTGCCTTTATGGACATG
GGTACCAATTGCTTTTGTAATATGGTAAAAATGTGAGCTAGCACTTCTGCGTTCTTTTGATTTTTTTTTTTTAA
CATGTATTCAGATTGAGAAATATGATTTTAATGCCTTAATCTCATGTAGTTTGTTTTTAATTTCAAGCAAAATCT
TACTGTACTTGAATGTGCCCTGTTTTGTAGCACACCTAGACTTGCTGTAAGTGTACTCATGTCCCAGTATGTAC
GTTCTTTCTATGAAAGAGAAAAACACTAATCTTAAATTATATCCAGCAATGTTTCTGGTATCCTTTAAGAAAAGTT
AAGACTATTATTTCCCTTCCCTTCCCTGTGCAGCATTCAAAAATCACCCCTAGAAAAAGTGAGTGTTTTAATGAGA
CTTCCTAGGAAGGGATGCACTGTAAAAACAAAAGTATTCTTGTAACCTCAGTTTTTGTAAGGTAAGGTAAGTACTAT
GTTTTAAGTACACTTTAGAAAGTCTCTTCAAAACAAACAGTCCTGTATTTGAACTCTGTTCATAGTTTTTTTTTG
AACAGTTTAGACAAAACCTGTTGGAAATTAAACCAATTTCCCTGCATTAAGCTGAGACAAGTATATAAACAGCCCTA
TACAGTTTCATAGCTTTTCCCTCCCCATTTATGTGTATTGGTGACAGTGGGTATAAACAGCCTGAAAGTGATG
CATGTACCATAACATTTAGACTTAATATATTGTGGAGTATTCAATAACCATTATGTAGAAGGTAGATAAGAATTA
AAAGGGTTTAATTTCCCTAGAAAGAAAAATGGAAAAATGGTCATTTTTTAAAAAATAAAGTTTATTAGATCATAATGT
TGTCTGAATTTACCACCTTTGTGAGAAGTCAACTCAAAGCTTCCAATGTAGTCAGTCTATAATTCCTTAATCAAA
GTCAGCAATTTATGGACAGCTTCAGCATTTACAGTTGACCTTTCACTAGCCAGGCAAACTTCCCTTAAATTTAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 358

MKDNKIMNNQDAIEKAVSRGQCLYKISSYTSYPMHDFYRCHTCNTTDRNAICVNCIKKCHQGHDFEIRHRYVA
HLLDILPNYFPPHFSNIWVSFCFRFFCDGAGTLSNPCTLAGEPTHDTDTLYDSAPPIESNTLQHN.

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FIGURE 359

GCGACGCGCCGAGGTACTAGGCAGAGCCGTGGAACCGCCGCCAGGTGCTGTTGGTCCACGCCGCCCGTTCGCGCC
GCCCGCCCGCTCAGCGTCCGCCGCCGCCATGGGAGTGCAGGTGGAAACCATCTCCCCAGGAGACGGGCGCACCTT
CCCCAAGCGCGGCCAGACCTGCGTGGTGCCTACACCGGGATGCTTGAAGATGGAAAGAAATTTGATTCTCTCCG
GGACAGAAACAAGCCCTTTAAGTTTATGCTAGGCAAGCAGGAGGTGATCCGAGGCTGGGAAGAAGGGGTTGCCCA
GATGAGTGTGGGTCAGAGAGCCAACTGACTATATCTCCAGATTATGCCTATGGTGCCACTGGGCACCCAGGCAT
CATCCCACCACATGCCACTCTCGTCTTCGATGTGGAGCTTCTAAACTGGAATTGACAGGAATGGCCTCCTCCCTT
AGCTCCCTGTTCTTGGGTAAGGAAATGGAATACTGAAGGGCCCTTCACTGCCTTTGCTCCTCCCATGTTATGCCC
AGCGTTTGATGGGTAGCAGAGAGAACAACCAACCAAGGCTATTTTTCCCCCTGCATTCTTCTGTATTGAG
TATCCTTTCAGTGTTATTAGTGTATGCTTTGAATGTAAAAATGGTCACCCTAAGGAAAGGAATTGGCATGTGTA
TGTCCCAGTTCAACTCATGGAGATGGCAGCTGTTTAAATGTTTTCTATGTAGTTTATAAATTAAACTGAATT
GAGGACTATGGAAATGTAGGCCAAATTTGTAGTGCCAACATTTTAGTTCTTTGGAATAA

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FIGURE 360

MGVQVETISPGDGRTFPKRGQTCVVHYTGMLLEDGKKFDSSRDRNKPFKFMLGKQEVIRGWEEGVAQMSVGQRAKL
TISPDYAYGATGHPIIPPHATLVFDVELLKLE

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FIGURE 361A

GCACAGTCTGTCTCTTCGCCGGTTCCCGGCCCCGTGGATCCTACTTCTCTGTGCGCCCGCGGTTCCGCCGCCCGCT
CGCCGCCCGCGATGCCAGTGTTTCATACGCGCACGATCGAGAGCATCCTGGAGCCGGTGGCACAGCAGATCTCCCA
CCTGGTGATAATGCACGAGGAGGGCGAGGTGGACGGCAAAGCCATTCTTGACCTCACC GCGCCCGTGGCCGCCGT
GCAGGCGGCCGTGAGCAACCTCGTCCGGGTTGGAAAAGAGACTGTTCAAACCACTGAGGATCAGATTTTGAAGAG
AGATATGCCACCAGCATTTATTAAGGTTGAGAATGCTTGCACCAAGCTTGTCAGGCAGCTCAGATGCTTCAGTC
AGACCCCTTACTCAGTGCCCTGCTCGAGATTATCTAATTGATGGGTCAAGGGGCATCCTCTCTGGAACATCAGACCT
GCTCCTTACCTTCGATGAGGCTGAGGTCCGTAAAAATTATTAGAGTTTGCAAAGGAATTTTGGAAATATCTTACAGT
GGCAGAGGTGGTGGAGACTATGGAAGATTTGGTCACTTACACAAAGAATCTTGGGCCAGGAATGACTAAGATGGC
CAAGATGATTGACGAGAGACAGCAGGAGCTCACTACCAGGAGCACCGAGTGATGTTGGTGAACTCGATGAACAC
CGTGAAAGAGTTGCTGCCAGTTCTCATTTACAGCTATGAAGATTTTGTAACTAACTAAAACTCAAAAAACCAAGG
CATAGAGGAAGCTTTAAAAAATCGCAATTTTACTGTAGAAAAATGAGTGCTGAAATTAATGAGATAATTCTGTGT
GTTACAACCTCACCTCTTGGGATGAAGATGCCTGGGCCAGCAAGGACACTGAAGCCATGAAGAGAGCATTGGCCCTC
CATAGACTCCAACTGAACCAGGCCAAAGGTTGGCTCCGTGACCCTAGTGCCCTCCCCAGGGGATGCTGGTGAGCA
GGCCATCAGACAGATCTTAGATGAAGCTGGAAGTTGGTGAACCTGTGTCAGGCAAAGAACGCAGGGAGATTCT
GGGAACCTGCAAAATGCTAGGGCAGATGACTGATCAAGTGGCTGACCTCCGTGCCAGAGGACAAGGATCCTCACC
GGTGGCCATGCAGAAAGCTCAGCAGGTATCTCAGGCTCTGGATGTGCTCACAGCAAAGTGGAAAATGCAGCTCG
CAAGCTGGAAGCCATGACCAACTCAAAGCAGAGCATTGCAAAGAAGATCGATGCTGCTCAGAACTGGCTTGCGA
TCCAAATGGTGGACCGGAAGGAGAAGAGCAGATTCTAGGCTGCTTTGGCTGAAGCTCGGAAAATAGCAGAATTATG
TGATGATCCTAAAGAAAGAGATGACATTCTACGTTCCCTTGGGGAAATATCTGCTCTGACTTCTAAATTAGCAGA
TCTACGAAGACAGGGGAAAGGAGATTCTCCAGAGGCTCGAGCCTTGGCCAAACAGGTGGCCACGGCCCTGCAGAA
CCTGCAGACCAAAACCAACCGGGCTGTGGCCAACAGCAGACCGGCCAAAGCAGCTGTACACCTTGAGGGCAAGAT
TGAGCAAGCACAGCGGTGGATTGATAATCCACAGTGGATGACCGTGGAGTCGGTCAGGCTGCCATCCGGGGGCT
TGTGGCCGAAGGGCATCGTCTGGCTAATGTTATGATGGGGCCTTATCGGCAAGATCTTCTCGCCAAGTGTGACCG
AGTGGAACAGCTGACAGCCCAGCTGGCTGACCTGGCTGCCAGAGGGGAAGGGGAGAGTCTCAGGCACGAGCACT
TGCATCTCAGCTCCAAGACTCCTTAAAGGATCTAAAAGCTCGGATGCAGGAGGCCATGACTCAGGAAGTGTGAGA
TGTTTTTCAGCGATACCACAACCTCCCATCAAGCTGTGGCAGTGGCAGCCACGGCGCCTCCTGATGCGCCTAACAG
GGAAGAGGTATTTGATGAGAGGGCAGCTAACTTTGAAAACCACTCAGGAAAGCTTGGTGCTACGGCCGAGAAGGC
GGCTGCGGTTGGTACTGCTAATAAATCAACAGTGGAAAGGCATTACGGCCTCAGTGAAGACGGCCCGAGAATCAC
ACCCAGGTGGTCTCGGCTGCTCGTATCTTACTTAGGAACCTGGAAATCAAGCTGCTTATGAACATTTTGAGAC
CATGAAGAACCAGTGGATCGATAATGTTGAAAAATGACAGGGCTGGTGGACGAAGCCATTGATACCAATCTCT
GTTGGATGCTTCAGAAGAAGCAATTAAAAAAGACCTGGACAAGTGAAGGTAGCTATGGCCAACATTCAGCCTCA
GATGCTGGTTGCTGGGGCAACCAAGTATTGCTCGTCGGGCCAACCGGATCCTGCTGGTGGCTAAGAGGGAGGTGGA
GAATTCGAGGATCCCAAGTTCGGTGAGGCTGTGAAAGCTGCCTCTGATGAATTGAGCAAAAACCATCTCCCCAAT
GGTGATGGATGCAAAAGCTGTGGCTGGAAACATTTCCGACCCTGGACTGCAAAAGAGCTTCTCGGACTCAGGATA
TCGGATCCTGGGAGCTGTGGCCAAGGTCAGAGAAGCCTTCCAACCTCAGGAGCCTGACTTCCCGCCGCTCCACC
AGACCTTGAACAACTCCGACTAACAGATGAGCTTGCTCCTCCCAAACCACTCTGCCTGAAGGTGAGGTCCCTCC
ACCTAGGCCTCCACCACCAGAGGAAAAGGATGAAGAGTTCCCTGAGCAGAAGGCCGGGGAGGTGATTAAACCAGCC
AATGATGATGGCTGCCAGACAGCTCCATGATGAAGCTCGCAAATGGTCCAGCAAGCCGGGCATCCAGCCGCTGA
GGTGGGTATAGGTGTTGTAGCTGAGGCAGATGCGGCCGATGCTGCTGGCTTCCCTGTCCCCCTGACATGGAAGA
CGATTACGAACCTGAGCTGCTGTTAATGCCATCCAATCAGCCGGTCAACCAGCCCATCTGGCCGCGGCTCAGTC
CTTGATCGGGAAGCTACCAAGTGGTCTAGTAAGGGCAATGACATCATTGCAGCAGCCAAGCGCATGGCTCTGCT
GATGGCTGAGATGTCTCGGCTGGTAAGAGGGGGCAGTGGTACCAAGCGGGCACTCATTAGTGTGCCAAGGACAT
CGCCAAGGCCTCAGATGAGGTGACTCGGTTGGCCAAGGAGGTTGCCAAGCAGTGCACAGATAAACGGATTAGAAC
CAACCTCTTACAGGTATGTGAGCGAATCCCAACCATAAGCACCCAGCTCAAAATCCTGTCCACAGTGAAGGCCAC
CATGCTGGGCGCGACCAACATCAGTGATGAGGAGTCTGAGCAGGCCACAGAGATGCTGGTTTACAATGCCAGAA
CCTCATGCAGTCTGTGAAGGAGACTGTGCGGGAAGCTGAAGCTGCTTCAATCAAAATTCGAACAGATGCTGGATT
TACACTGCGCTGGGTTAGAAAGACTCCCTGGTACCAGTAGGCACCTGGCTGAGCCTGGCTGGCACAGAAACCTCT
ACTAAAAGAAGGAAAATGATCTGAGTCCCAGGAGCTGCCAGAGTTGCTGGGAGCTGAAAAATCACATCCTGGC

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FIGURE 361B

CTGGCACATCAGAAAGGAATGGGGGCTCTTCAAATTAGAAGACATTTATACTCTTTTTTCATGGACACTTTGAA
ATGTGTTTCTGTATAAAGCCTGTATTCTCAAACACAGTTACACTTGTGCACCCTCTATCCCAATAGGCAGACTGG
GTTTCTAGCCCATGGACTTCACATAAGCTCAGAATCCAAGTGAACACTAGCCAGACACTCTGCTCTGCCCTTGTT
CCCTAGGGGACACTTCCCTCTGTTTCTCTTTTCCTTGGCTCCCATTCACTCTTCCAGAATCCCAAGACCCAGGGCC
CAGGCAAATCAGTTACTAAGAAGAAAATTGCTGTGCCTCCCAAATGTTTTGAGCTTTCCATGTTGCTGCCAAC
CATACCTTCCTTCCCTGGGCTGTGCTACCTGGGTCCTTTTCAGAAGTGAGCTTTGCTGCTACAGGGGAAGGTGGC
CTCTGTGGAGCCCAGCATATGGGGGCTGGATTCAATTCCTGCCCTTCCTCAGTTTAATCCTTCTAGTTTCCCA
CAATATAAACTGTACTTCACTGTGAGGAAGAAATCACAGAATCATATGATTCTGCTTTTACCATGCCCTGAGC
AATGTCTGTGCTAGGGAACTCCCGTCCCATATCCTGCCTCAGCCCGCCAAGGTAGCCATCCCATGAACACACT
GTGTCCTGGTGCTCTCTGCCACTGGAAGGGCAGAGTAGCCAGGGTGTGGCCCTGCCATCTTCCAGCAGGGCCAC
TCCGGCACTCCATGCTTAGTCACTGCCTGCAGAGGTCTGTGCTGAGGCCTTATCATTCACTTCTAGCTCTTAAT
TGTTCATTTTGAGCTGAAATGCTGCATTTTAATTTTAACCAAAACATGTCTCCTATATCCTGGTTTTTGTAGCCT
TCCTCCACATCCTTTCTAAACAAGATTTTAAAGACATGTAGGTGTTTGTTCATCTGTAACCTCTAAAGATCCTTT
TTAAATTCAGTCCTAAGAAAGAGGAGTGCTTGTCCCTAAGAGTGTTTAATGGCAAGGCAGCCCTGTCTGAAGGA
CACTTCCTGCCTAAGGGAGAGTGGTATTTGCAGACTAGAATTCTAGTGCTGCTGAAGATGAATCAATGGGAAATA
CTACTCCTGTAATTCCTACCTCCCTGCAACCAACTACAACCAAGCTCTCTGCATCTACTCCCAAGTATGGGGTTC
AAGAGAGTAATGGGTTTCATATTTCTTATCACCACAGTAAGTTTCTACTAGGCAAAATGAGAGGGCAGTGTTTCC
TTTTTGGTACTTATTACTGCTAAGTATTTCCCAGCACATGAAACCTTATTTTTTCCAAAGCCAGAACCAGATGAG
TAAAGGAGTAAGAACCTTGCCTGAACATCCTTCCCTCCACCCATCGCTGTGTGTTAGTTCCCAACATCGAATGT
GTACAACCTTAAGTTGGTCCTTTACACTCAGGCTTTCACTATTTTCTTTTAAATGAGGATGATTATTTTCAAGGCC
CTCAGCATATTTGTATAGTTGCTTGCCTGATATAAATGCAATATTAATGCCTTTAAAGTATGAATCTATGCCAAA
GATCACTTGTGTTTTTACTAAAGAAAGATTACTTAGAGGAAATAAGAAAAATCATGTTTGCTCTCCCGGTTCTTC
CAGTGGTTTTGAGACACTGGTTTACACTTTATGCCGGATGTGCTTTTCTCCAATATCAGTGCTCGAGACACAGTGA
AGCAAATTAAAAAAA

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FIGURE 362

MPVFHTRTIESILEPVAQQISHLVIMHEEGEVDGKAIPDLTAPVAAVQAAVSNLVRVGKETVQTTEQILKRDMP
PAFIKVENACTKLVQAAQMLQSDPYSPARDYLIDGSRGILSGTSDLLLTDFDEAEVRKIIRVCKGILEYLTVAEV
VETMEDLVITYTKNLGPGMTKMAKMIDERQQELTHQEHVMLVNSMNTVKELLPLISAMKIFVTTKNSKNQGIEE
ALKNRNFTVEKMSAEINEIIRVLQLTSWDEDAWASKDTEAMKRALASIDSKLNQAKGWLDRDPSASPGDAGEQAIR
QILDEAGKVGEELCAGKERREILGTCKMLGQMTDQVADLRARGQGSSPVAMQKAQQVSQGLDVLTAKVENAARKLE
AMTNSKQSIAKKIDAAQNWLADPNNGGPEGEEQIRGALAEARKIAELCDDPKERDDILRSLGEISALTSKLADLRR
QGKGDSPEARALAKQVATALQNLQTKTNRAVANSRPAKAAVHLEGKIEQAQRWIDNPTVDDRGVGQAAIRGLVAE
GHRLANVMMGPYRQDLLAKCDRVDQLTAQLADLAARGESESPQARALASQLQDSLKDLKARMQEAMTQEVSDVFS
DTTTPIKLLAVAATAPPDAPNREEVFDERAANFENHSGKLGATAEKAAAVGTANKSTVEGIQASVKTARELTPQV
VSAARILLRNPNGQAAYEHFETMKNQWIDNVEKMTGLVDEAIDTKSLLDASEEAIKKDLCKVAMANIQPQMLV
AGATSIARRANRILLVAKREVENSEDPKFREAVKAASDELSKTI SPMVMDAKAVAGNISDPGLQKSF LDSGYRIL
GAVAKVREAFQPQEPDFPPPPPDLEQLRLTDELAPPKPPLPEGEVPPPRPPPPPEEKDEEFPEQKAGEVINQPM
AARQLHDEARKWSSKPGIPAAEVGIGVVAEADAADAAGFPVPPDMEDDYEPPELLLMPSNQPVNQPI LAAAQSLHR
EATKWSSKGNDIIAAAKRMALLMAEMSRLVRGGSGTKRALIQCAKDI AKASDEVTRLAKEVAKQCTDKRIRTNLL
QVCERIPTISTQLKILSTVKATMLGRNISDEESEQATEMLVHNAQNLMSVKETVREAEAAASIKIRTDAGFTLR
WVRKTPWYQ

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FIGURE 363

GTCCATGGGGACCCCTCGCCTTCGATGAATATGGGCGCCCTTTCTCATCATCAAGGATCAGGACCGCAAGTCCCG
TCTTATGGGACTTGAGGCCCTCAAGTCTCATATAATGGCAGCAAAGGCTGTAGCAAATACAATGAGAACATCACT
TGGACCAAATGGGCTTGATAAGATGATGGTGGATAAGGATGGGGATGTGACTGTAACATAATGATGGGGCCACCAT
CTTAAGCATGATGGAIGTTGATCATCAGATTGCCAAGCTGATGGTGGAACTGTCCAAGTCTCAGGATGATGAAAT
TGGAGATGGAACCACAGGAGTGGTTGTCCTGGCTGGTGCCTTGTTAGAAGAAGCGGAGCAATTGCTAGACCGAGG
CATTACCCAATCAGAATAGCCGATGGCTATGAGCAGGCTGCTCGCGTTGCTATTGAACACCTGGACAAGATCAG
CGATAGCGTCCTTGTTGACATAAAGGACACCGAACCCCTGATTAGACAGCAAAAACCACGCTGGGCTCCAAAGT
GGTCAACAGTTGTCACCGACAGATGGCTGAGATTGCTGTGAATGCCGTCCTCACTGTAGCAGATATGGAGCGGAG
AGACGTTGACTTTGAGCTTATCAAAGTAGAAGGCAAAGTGGGCGGCAGGCTGGAGGACACTAACTGATTAAGGG
CGTGATTGTGGACAAGGATTTCACTCACCCACAGATGCCAAAAAAGTGGAAAGATGCGAAGATTGCAATTCTCAC
ATGTCCATTTGAACCACCCAAACCAAAAACAAAGCATAAGCTGGATGTGACCTCTGTGCAAGATTATAAAGCCCT
TCAGAAATACGAAAAGGAGAAATTTGAAGAGATGATTCAACAAATTAAAGAGACTGGTGCTAACCTAGCAATTTG
TCAGTGGGGCTTTGATGATGAAGCAAATCACTTACTTCTTCAGAACAACCTTGCTGCGGTTGCTGGGTAGGAGG
ACCTGAAATTGAGCTGATTGCCATCGCAACAGGAGGGCGGATCGTCCCCAGGTTCTCAGAGCTCACAGCCGAGAA
GCTGGGCTTTGCTGGTCTTGACAGGAGATCTCATTTGGGACAACCTAAGGATAAAATGCTGGTCATCGAGCAGTG
TAAGAACTCCAGAGCTGTAACCATTTTTATTAGAGGAGGAAATAAGATGATCATTGAGGAGGGCGAAACGATCCCT
TCACGATGCTTTGTGTGTCATCCGGAACCTCATCCGCGATAATCGTGTGGTGTATGGAGGAGGGGCTGCTGAGAT
ATCCTGTGCCCTGGCAGTTAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCATGAGAGCGTTTGC
CGACGCACTGGAGGTCATCCCCATGGCCCTCTCTGAAAACAGTGGCATGAATCCCATCCAGACTATGACCGAAGT
CCGAGCCAGACAGGTGAAGGAGATGAACCCTGCTCTTGGCATCGACTGTTTGACAAGGGGACAAATGATATGAA
GCAACAGCATGTGCATAGAAACCTTGATTGGCAAAAAGCAACAGATATCTCTTGCAACACAAATGGTTAGAATGAT
TTTGAAGATTGATGACATTCGTAAGCCTGGAGAATCTGAAGAATGAAGACATTGAGAAAACTATGTAGCAAGATC
CACTTCTGTGATTAAGTAAATGGATGTCTCGTGATGCGTCTACAGTTATTTATTGTTACATCCTTTTCCAGACAC
TGTAGATGCTATAATAAAAAATAGCTGTTTGGTAACCATAGTTTCACTTGTTCAAAGCTGTGTAATCGTGGGGGTA
CTATCTCAACTGCTTTTGTATTCAATTGTATTAAAAAGAACTGTGTTAAACAACCTTTATCTTCTCTCGGGTTTAA
GAAACGTTTATTGTAACAGTAATTAAATGCTGCCTTAATTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 364

SMGTLAFDEYGRPFLIIKDQDRKSRLMGLEALKSHIMAAKAVANTMRTSLGPNGLDKMMVDKDGDTVTVNDGATI
LSMMDVDHQAIAKLMVELSKSQDDEIGDGTGTVVLAGALLEEAEQLLDRIHPIRIADGYEQAAARVAIEHLDKIS
DSVLVDIKDTEPLIQTAKTTLGSKVVNSCHRQMAEIAVNAVLTVADMERRDVDFELIKVEGKVGGRLDTKLIK
VIVDKDFSHPQMPKKVEDAKIAILTCPFEPKPKTKHKLDVTSVEDYKALQKYEKEKFEEMIQQIKETGANLAIC
QWGFDDDEANHLLLQNNLPAVRWVGGEIELIAIATGGRIVPRFSELTAEKLGFAGLVQEISFGTTKDKMLVIEQC
KNSRAVTIFIRGGNKMIIEEAKRSLHDALCVIRNLIRDNRVYGGGAAEISCALAVSQEADKCPtleQYAMRAFA
DALEVIPMALSENSGMNPIQTMTEVRARQVKEMNPALGIDCLHKGTNDMKQQHVIETLIGKKQQISLATQMVRMI
LKIDDIRKPGEESE

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FIGURE 365

AAACACTCTGTGTGGCTCCTCGGCTTTGGGACAGAGTGCAAGACGATGACTTGCAAAATGTCGCAGCTGGAACGC
AACATAGAGACCATCATCAACACCTTCCACCAATACTCTGTGAAGCTGGGGCACCCAGACACCCTGAACCAGGGG
GAATTCAAAGAGCTGGTGCGAAAAGATCTGCAAAATTTTCTCAAGAAGGAGAATAAGAATGAAAAGGTCATAGAA
CACATCATGGAGGACCTGGACACAAATGCAGACAAGCAGCTGAGCTTCGAGGAGTTCATCATGCTGATGGCGAGG
CTAACCTGGGCCTCCACGAGAAGATGCACGAGGGTGACGAGGGCCCTGGCCACCACCATAAGCCAGGCCTCGGG
GAGGGCACCCCCTAAGACCACAGTGGCCAAGATCACAGTGGCCACGGCCATGGCCACAGTCATGGTGGCCACGGC
CACAGGCCACTAATCAGGAGGCCAGGCCACCCTGCCTCTACCCAACCAGGGCCCCGGGGCCTGTTATGTCAAAC
GTCTTGGCTGTGGGGCTAGGGGCTGGGGCCAATAAAGTCTCTTCCTCCAA

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FIGURE 366

MTCKMSQLERNIETIINTFHQYSVKLGHPDTLNQGEFKELVRKDLQNFLKKENKNEKVIEHIMEDLDTNADKQLS
FEEFIMLMARLTWASHEKMHEGDEGPGHHHKPGLGEGTP

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FIGURE 367A

CCGACCAACACCAACACCCAGCTCCGACGCAGCTCCTCTGCGCCCTTGCCGCCCTCCGAGCCACAGCTTTCCTCC
CGCTCCTGCCCCCGGCCGTCGCCGTCTCCGCGCTCGCAGCGGCCTCGGGAGGGCCAGGTAGCGAGCAGCGACC
TCGCGAGCCTTCCGCACTCCCGCCCGGTTCCCGGCCGTCCGCTATCCTTGCCCCCTCCGCTTTCCTCCGCGCC
GGCCCGCCTCGCTTATGCCTCGGCGCTGAGCCGCTCTCCCGATTGCCCCCGGACATGAGCTGCAACGGAGGCTCC
CACCCGCGGATCAACACTCTGGGCCGATGATCCGCGCCGAGTCTGGCCCCGACCTGCGCTACGAGGTGACCAGC
GGCGGCGGGGGCACCAGCAGGATGTACTATTCTCGGCGCGGCGTGATCACCAGCAGAACTCGGACGGCTACTGT
CAAACCGGCACGATGTCCAGGCACCAGAACCAGAAACACCATCCAGGAGCTGCTGCAGAACTGCTCCGACTGCTTG
ATGCGAGCAGAGCTCATCGTGACGCTGAATTGAAGTATGGAGATGGAATACAACCTGACTCGGAGTCGAGAATTG
GATGAGTGTITGCCCAGGCCAATGACCAAATGGAATCCTCGACAGCTTGATCAGAGAGATGCGGCAGATGGGC
CAGCCCTGTGATGCTTACCAGAAAAGGCTTCTTCAGCTCCAAGAGCAAATGCGAGCCCTTTATAAAGCCATCAGT
GTCCCTCGAGTCCGCGAGGGCCAGCTCCAAGGGTGGTGGAGGCTACACTTGTGAGAGTGGCTCTGGCTGGGATGAG
TTCACCAAACATGTCACCACTGAATGTTTGGGGTGGATGAGGCAGCAAAGGGCGGAGATGGACATGGTGGCCTGG
GGTGTGGACCTGGCCTCAGTGGAGCAGCACATTAAACAGCCACCGGGGCATCCACAACCTCCATCGGCGACTATCGC
TGGCAGCTGGACAAAATCAAAGCCGACCTGCGCGAGAAATCTGCGATCTACCAGTTGGAGGAGGAGTATGAAAAC
CTGCTGAAAAGCGTCTTTGAGAGGATGGATCACCTGCGACAGCTGCAGAACATCATTACAGGCCACGTCCAGGGAG
ATCATGTGGATCAATGACTGCGAGGAGGAGGAGCTGCTGTACGACTGGAGCGACAAGAACACCAACATCGCTCAG
AAACAGGAGGCCCTTCTCCATACGCATGAGTCAACTGGAAGTTAAAGAAAAAGAGCTCAATAAGCTGAAACAAGAA
AGTGACCAACTTGTCTCAATCAGCATCCAGCTTCAGACAAAATTGAGGCCTATATGGACACTCTGCAGACGCAG
TGGAGTTGGATTCTTCAGATCACCAAGTGCATTGATGTTTATCTGAAAGAAAATGCTGCCTACTTTTCACTTTTTT
GAAGAGGCGCAGTCTACTGAAGCATACCTGAAGGGGCTCCAGGACTCCATCAGGAAGAAGTACCCCTGCGACAAG
AACATGCCCCCTGCAGCACCTGCTGGAACAGATCAAGGAGCTGGAGAAAAGAACGAGAGAAAATCCTTGAATACAAG
CGTCAGGTGCAGAACTTGGTAAACAAGTCTAAGAAGATTGTACAGCTGAAGCCTCGTAACCCAGACTACAGAAGC
AATAAACCCATTATTCTCAGAGCTCTCTGTGACTACAAACAAGATCAGAAAATCGTGCATAAGGGGGATGAGTGT
ATCCTGAAGGACAACAACGAGCGCAGCAAGTGGTACGTGACGGGCCCCGGGAGGCGTTGACATGCTTGTTCCTCT
GTGGGGCTGATCATCCCTCCTCCGAACCCACTGGCCGTGGACCTCTCTTGCAAGATTGAGCAGTACTACGAAGCC
ATCTTGGCTCTGTGGAACCAGCTCTACATCAACATGAAGAGCCTGGTGTCTTGGCACTACTGCATGATTGACATA
GAGAAGATCAGGGCCATGACAATCGCCAAGCTGAAAACAATGCGGCAGGAAGATTACATGAAGACGATAGCCGAC
CTTGAGTTACATTACCAAGAGTTCATCAGAAATAGCCAAGGCTCAGAGATGTTTGGAGATGATGACAAGCGGAAA
ATACAGTCTCAGTTTACCGATGCCCAGAAGCATTACAGACCTGGTCAATCAGCTCCCTGGCTATCCCCAGCAC
CAGACAGTGACCACAACCTGAAATCACTCATGGAACCTGCCAAGATGTCAACCATAATAAAGTAATTGAAACC
AACAGAGAAAATGACAAGCAAGAAACATGGATGCTGATGGAGCTGCAGAAGATTGCGAGGCAGATAGAGCACTGC
GAGGGCAGGATGACTCTCAAAAACCTCCCTTAGCAGACCAGGGGTCTTCTCACCACATCACAGTGAAAATTAAC
GAGCTTAAGAGTGTGCAGAAATGATTCACAAGCAATTGCTGAGGTTCTCAACCAGCTTAAAGATATGCTTGCCAAC
TTCAGAGGTTCTGAAAAGTACTGCTATTTACAGAAATGAAGTATTTGGACTATTTAGAAAATGGAATAATCAAT
GGTGTACAGATGGCTACTTAAATAGCTTATGCACAGTAAGGGCACTGCTCCAGGCTATTCTCCAAACAGAAGAC
ATGTTAAAGGTTTATGAAGCCAGGCTCACTGAGGAGGAACTGTCTGCCTGGACCTGGATAAAGTGGAAGCTTAC
CGCTGTGGACTGAAGAAAATAAAAAATGACTTGAACCTGAAGAAGTCGTTGTTGGCCACTATGAAGACAGAACTA
CAGAAAGCCCAGCAGATCCACTCTCAGACTTCACAGCAGTATCCACTTTATGATCTGGACTTGGGCAAGTTCGGT
GAAAAAGTCACACAGCTGACAGACCGCTGGCAAAGGATAGATAAACAGATCGACTTTAGATTATGGGACCTGGAG
AAACAAATCAAGCAATTGAGGAATTATCGTGATAACTATCAGGCTTTCTGCAAGTGGCTCTATGATCGTAAACGC
CGCCAGGATTTCCTTAGAATCCATGAAATTTGGAGATTCCAACACAGTCATGCGGTTTTTGAATGAGCAGAAGAAC
TTGCACAGTGAAATATCTGGCAAACGAGACAAATCAGAGGAAGTACAAAAAATTGCTGAACCTTTGCGCCAATTCA
ATTAAGGATTATGAGCTCCAGCTGGCCTCATACACCTCAGGACTGGAACTCTGCTGAACATACCTATCAAGAGG
ACCATGATTTCAGTCCCTTCTGGGGTGATTCTGCAAGAGGCTGCAGATGTTTATGCTCGGTACATTGAACTACTT
ACAAGATCTGGAGACTATTACAGGTTCTTAAGTGAAGTGTGAGAGTTTGAAGATCTGAAGCTGAAAAATACC
AAGATCGAAGTTTTTGAAGAGGAGCTCAGACTGGCCCGAGATGCCAACTCGGAAAACCTGTAATAAGAACAATTC
CTGGATCAGAACCTGCAGAAATACCAGGCAGAGTGTCCAGTTCAAAGCGAAGCTTGCGAGCCTGGAGGAGCTG
AAGAGACAGGCTGAGCTGGATGGGAAGTCGGCTAAGCAAATCTAGACAAGTGTACGGCCAAATAAAAGAACTC

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FIGURE 367B

AATGAGAAGATCACCCGACTGACTTATGAGATTGAAGATGAAAAGAGAAGAAGAAAATCTGTGGAAGACAGATTT
GACCAACAGAAGAATGACTATGACCAACTGCAGAAAGCAAGGCAATGTGAAAAGGAGAACCTTGTTGGCAGAAA
TTAGAGTCTGAGAAAGCCATCAAGGAGAAGGAGTACGAGATTGAAAGGTTGAGGGTTCTACTGCAGGAAGAAGGC
ACCCGGAAGAGAGAATATGAAAATGAGCTGGCAAAGGTAAGAAACCACTATAATGAGGAGATGAGTAATTTAAGG
AACAGTATGAAACAGAGATTAACATTACGAAGACCACCATCAAGGAGATATCCATGCAAAAAGAGGATGATTCC
AAAAATCTTAGAAACCAGCTTGATAGACTTTCAAGGGAAAATCGAGATCTGAAGGATGAAATTGTCAGGCTCAAT
GACAGCATCTTGACAGGCCACTGAGCAGCGAAGGCGAGCTGAAGAAAACGCCCTTCAGCAAAAGGCCTGTGGCTCT
GAGATAATGCAGAAGAAGCAGCATCTGGAGATAGAACTGAAGCAGGTCATGCAGCAGCGCTCTGAGGACAATGCC
CGGCACAAGCAGTCCCTGGAGGAGGCTGCCAAGACCATTGAGGACAAAAATAAGGAGATCGAGAGACTCAAAGCT
GAGTTTCAGGAGGAGGCCAAGCGCCGCTGGGAATATGAAAATGAACTGAGTAAGGTAAGAAACAATTATGATGAG
GAGATCATTAGCTTAAAAAATCAGTTTGAGACCGAGATCAACATCACCAAGACCACCATCCACCAGCTCACCATG
CAGAAGGAAGAGGATACCAGTGGCTACCGGGCTCAGATAGACAATCTCACCCGAGAAAACAGGAGCTTATCTGAA
GAAATAAAGAGGCTGAAGAACACTCTAACCAGACCACAGAGAATCTCAGGAGGGTGGAAGAAGACATCCAACAG
CAAAAGGCCACTGGCTCTGAGGTGTCTCAGAGGAAACAGCAGCTGGAGGTTGAGCTGAGACAAGTCACCTCAGATG
CGAACAGAGGAGAGCGTAAGATATAAGCAATCTCTTGATGATGCTGCCAAAACCATCCAGGATAAAAAACAAGGAG
ATAGAAAGGTTAAAAACAATGATCGACAAAGAAACAAATGACCGGAAATGCCTGGAAGATGAAAACGCGAGATTA
CAAAGGGTCCAGTATGACCTGCAGAAAGCAAACAGTAGTGCGACGGAGACAATAAACAACTGAAGGTTTCAGGAG
CAAGAACTGACACGCCTGAGGATCGACTATGAAAGGGTTTTCCAGGAGAGGACTGTGAAGGACCAGGATATCAG
CGGTTCCAGAACTCTCTGAAAGAGCTGCAGCTGCAGAAGCAGAAGGTGGAAGAGGAGCTGAATCGGCTGAAGAGG
ACCGCGTCAGAAGACTCCTGCAAGAGGAAGAAGCTGGAGGAAGAGCTGGAAGGCATGAGGAGGTGCTGAAGGAG
CAAGCCATCAAAAATCACCAACCTGACCCAGCAGCTGGAGCAGGCATCCATTGTTAAGAAGAGGAGTGAGGATGAC
CTCCGGCAGCAGAGGGACGTGCTGGATGGCCACCTGAGGGAAGAGCAGAGGACCCAGGAAGAGCTGAGGAGGCTC
TCTTCTGAGGTCGAGGCCCTGAGGCGGCAGTTACTCCAGGAACAGGAAAGTGTCAAACAAGCTCACTTGAGGAAT
GAGCATTTCAGAAAGGCGATAGAAGATAAAAGCAGAAGCTTAAATGAAAGCAAAATAGAAATTGAGAGGCTGCAG
TCTCTCACAGAGAACCTGACCAAGGAGCACTTGATGTTAGAAGAAGAACTGCGGAACCTGAGGCTGGAGTACGAT
GACCTGAGGAGAGGACGAAAGCGAAGCGGACAGTGA TAAAAATGCAACCATCTTGAACTAAGGAGCCAGCTGCAG
ATCAGCAACAACCGGACCCCTGGAACCTGCAGGGGCTGATTAATGATTTACAGAGAGAGAGGGAAAATTTGAGACAG
GAAATTGAGAAATTCCAAAAGCAGGCTTTAGAGGCATCTAATAGGATTCAGGAATCAAAGAATCAGTGTACTCAG
GTGGTACAGGAAAAGAGAGCCTTCTGGTGAAAATCAAAGTCTTGAGCAAGACAAGGCAAGGCTGCAGAGGCTG
GAGGATGAGCTGAATCGTGCAAAATCAACTCTAGAGGCAGAAACCAGGGTGAAACAGCGCCTGGAGTGTGAGAAA
CAGCAAATTCAGAAATGACCTGAATCAGTGGAAGAC TCAATATTCCCGCAAGGAGGAGGCTATTAGGAAGATAGAA
TCGGAAGAGAAAAGAGTGAGAGAGAGAAGAACAGTCTTAGGAGTGAGATCGAAAGACTCCAAGCAGAGATCAAG
AGAATTGAAGAGAGGTGCAGGCGTAAGCTGGAGGATTCTACCAGGGAGACACAGTCACAGTTAGAAACAGAACGC
TCCCGATATCAGAGGGAGATTGATAAACTCAGACAGCGCCATATGGGTCCCATCGAGAGACCCAGACTGAGTGT
GAGTGGACCGTTGACACCTCCAAGCTGGTGTGTTGATGGGCTGAGGAAGAAGGTGACAGCAATGCAGCTCTATGAG
TGTCAGCTGATCGACAAAACAACCTTGGACAACTATTGAAGGGGAAGAAGTCAGTGGAAGAAGTTGCTTCTGAA
ATCCAGCCATTCTTCGGGGTGACGGATCTATCGTGGAGCATCTGCTTCTCCTAAGGAAAAATACTCTTTGGTA
GAGGCCAAGAGAAAAGAAATTAATCAGCCCAGAAATCCACAGTCATGCTTCTGGAGGCCCAGGCAGCTACAGGTGGT
ATAATTGATCCCCATCGGAATGAGAAGCTGACTGTGACAGTGCCATAGCTCGGGACCTCATTGACTTCGATGAC
CGTCAGCAGATATATGCAGCAGAAAAAGCTATCAC TGGTTTTGATGATCCATTTTCAGGCAAGACAGTATCTGTT
TCAGAAGCCATCAAGAAAAATTTGATTGATAGAGAAACCGGAATGCGCCTGCTGGAAGCCAGATTGCTTCAGGG
GGTGTAGTAGACCCTGTGAACAGTGTCTTTTTGCCAAAAGATGTCGCCTTGGCCCGGGGGCTGATTGATAGAGAT
TTGTATCGATCCCTGAATGATCCCCGAGATAGTCAGAAAAACTTTGTGGATCCAGTCACCAAAAAGAAGGTCAGT
TACGTGCAGCTGAAGGAACGGTGCAGAATCGAACCACATACTGGTCTGCTCTTGCTTTCAGTACAGAAGAGAAGC
ATGTCCTTCCAAGGAATCAGACAACCTGTGACCGTCACTGAGCTAGTAGATTCTGGTATATTGAGACCGTCCACT
GTCAATGAACTGGAATCTGGTCAGATTTCTTATGACGAGGTTGGTGAGAGAATTAAGGACTTCCTCCAGGGTTCA
AGCTGCATAGCAGGCATATACAATGAGACCACAAAACAGAAGCTTGGCATTATGAGGCCATGAAAATTGGCTTA
GTCCGACCTGGTACTGCTCTGGAGTTGCTGGAAGCCCAAGCAGCTACTGGCTTTATAGTGGATCCTGTTAGCAAC

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FIGURE 367C

TTGAGGTTACCACTGGAGGAAGCCTACAAGAGAGGTCTGGTGGGCATTGAGTTCAAAGAGAAGCTCCTGTCTGCA
GAACGAGCTGTCACTGGGTATAATGATCCTGAAACAGGAAACATCATCTCTTTGTTCCAAGCCATGAATAAGGAA
CTCATCGAAAAAGGCCACGGTATTTCGCTTATTAGAAGCACAGATCGCAACCGGGGGGATCATTGACCCAAAGGAG
AGCCATCGTTTACCACTTGACATAGCATATAAGAGGGGCTATTTCAATGAGGAACCTCAGTGAGATTCTCTCAGAT
CCAAGTGATGATACCAAAGGATTTTTTGACCCCAACACTGAAGAAAATCTTACCTATCTGCAACTAAAAGAAAGA
TGCATTAAGGATGAGGAAACAGGGCTCTGTCTTCTGCCTCTGAAAGAAAAGAAGAAACAGGTGCAGACATCACAA
AAGAATACCCTCAGGAAGCGTAGAGTGGTCATAGTTGACCCAGAAACCAATAAAGAAATGTCTGTTTCAGGAGGCC
TACAAGAAGGGCCTAATTGATTATGAAACCTTCAAAGAAGTGTGTGAGCAGGAATGTGAATGGGAAGAAATAACC
ATCACGGGATCAGATGGCTCCACCAGGGTGGTCTTGGTAGATAGAAAGACAGGCAGTCAGTATGATATTCAAGAT
GCTATTGACAAGGGCCTTGTGACAGGAAGTTCTTTGATCAGTACCGATCCGGCAGCCTCAGCCTCACTCAATTT
GCTGACATGATCTCCTTGAAAAATGGTGTGGGCACCAGCAGCAGCATGGGCAGTGGTGTGAGCGATGATGTTTTT
AGCAGCTCCCGACATGAATCAGTAAGTAAGATTTCCACCATATCCAGCGTCAGGAATTTAACCATAGGAGCAGC
TCTTTTTTCAGACACCCTGGAAGAATCGAGCCCCATGTCAGCCATCTTTGACACAGAAAACCTGGAGAAAATCTCC
ATTACAGAAGGTATAGAGCGGGGCATCGTTGACAGCATCACGGGTGAGAGGCTTCTGGAGGCTCAGGCCTGCACA
GGTGGCATCATCCACCCAACCACGGGCCAGAAGCTGTCACCTTCAGGACGCAGTCTCCCAGGGTGTGATTGACCAA
GACATGGCCACCAGCGTGAAAGCCTGCTCAGAAAGCCTTCATAGGCTTCGAGGGTGTGAAGGGAAAGAAGAAGATG
TCAGCAGCAGAGGCAGTGAAAGAAAAATGGCTCCCGTATGAGGCTGGCCAGCGCTTCCTGGAGTTCCAGTACCTC
ACGGGAGGTCTTGTTGACCCGGAAGTGCATGGGAGGATAAGCACCGAAGAAGCCATCCGGAAGGGGTTTCATAGAT
GGCCGCGCCGCACAGAGGCTGCAAGACACCAGCAGCTATGCCAAAATCCTGACCTGCCCCAAAACCAATTAAAA
ATATCCTATAAGGATGCCATAAATCGCTCCATGGTAGAAGATATCACTGGGCTGCGCCTTCTGGAAGCCGCCTCC
GTGTGCTCCAAGGGCTTACCCAGCCCTTACAACATGTCTTCGGCTCCGGGGTCCCGCTCCGGCTCCCGCTCGGGA
TCTCGCTCCGGATCTCGCTCCGGGTCCCGCAGTGGGTCCCGGAGAGGAAGCTTTGACGCCACAGGGAATTCTTCC
TACTCTTATTCTACTCATTTAGCAGTAGTTCTATTGGGCACTAGTAGTCAGTTGGGAGTGGTTGCTATACCTTG
ACTTCATTTATATGAATTTCCACTTTTATTAATAATAGAAAAGAAAATCCCGGTGCTTGAGTAGAGTGATAGGA
CATTCTATGCTTACAGAAAATATAGCCATGATTGAAATCAAATAGTAAAGGCTGTTCTGGCTTTTTATCTTCTTA
GCTCATCTTAAATAAGCAGTACACTTGGATGCAGTGCCTCTGAAGTGCTAATCAGTTGTAACAATAGCACAAATC
GAACCTAGGATTTGTTTCTTCTTCTGTGTTTCGATTTTTGATCAATTTCTTAATTTTGAAGCCTATAATACA
GTTTTCTATTCTTGGAGATAAAAAATTAAATGGATCACTGATATTTTAGTCATTCTGCTTCTCATCTAAATATTTT
CATATTCTGTATTAGGAGAAAAATTACCCTCCAGCACCAGCCCCCTCTCAAACCCCCAACCCAAAACCAAGCAT
TTTGGAATGAGTCTCCTTTAGTTTCAGAGTGTGGATTGTATAACCCATATACTCTTCGATGTACTTGTTTGGTTT
GGTATTAATTTGACTGTGCATGACAGCGCAATCTTTCTTTGGTCAAAGTTTTCTGTTTATTTTGCTTGTCTATA
TTCGATGTACTTTAAGGTGTCTTTATGAAGTTTGCATTCTGGCAATAAACTTTTAGACTTTT

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FIGURE 368

MSCNGGSHPRINTLGRMIRAESGPDRLRYEVTSGGGGTSRMYYSRRGVITDQNSDGYCQTGTMSRHQNQNTIQELL
QNCSDCLMRAELIVQPELKYGDGIQLTRSRELDECFAQANDQMEILDSLIREMRQMGQPCDAYQKRLQLQEQMR
ALYKAISVPRVRRASSKGGGYYTCQSGSGWDEFTKHVTSECLGWMRQQRRAEMDMVAVGVDLASVEQHINSHRGIH
NSIGDYRWQLDKIKADLREKSAIYQLEEEYENLLKASFERMDHLRQLQNI IQATSREIMWINDCEEEELLYDWS
KNTNIAQKQEAFSIRMSQLEVKEKELNKLKQESDQLVLNQHPASDKIEAYMDTLQTQWSWILQITKCIDVHLKEN
AAYFQFFEEAQSTEAYLKGLQDSIRKKYPCDKNMP LQHLLQIKELEKEREKILEYKRQVQNLVNKSKKIVQLKP
RNPDRSNKPIILRALCDYKQDQKIVHKGDECILKDNNSKSWYVTGPGGVMDLVPVGLIIPPPNPLAVDLCK
IEQYEAAILALWNQLYINMKSLVSWHYCMIDIEKIRAMTIAKLKTMREQEDYMKTIADELEHYQEFIRNSQGSEMF
GDDDKRKIQSQFTDAQKHQTLVIQLPGYPQHQTVTTEITHHGTCQDVNHNKVIETNRENDKQETWMLMELQKI
RRQIEHCEGRMTLKNLPLADQGSSHHITVKINELKSVQNDQSAIAEVLNQLKDMLANFRGSEKYCYLQNEVFGF
QKLENINGVTDGYLNSLCTVRALLQAILQTEDMLKVYEARLTEEETVCLDLKVEAYRCGLKKIKNDLNLKKSLL
ATMKTELQKAQQIHSQTSQQYPLYDLGLGFGKVTQLTDRWQRIKQIDFRLWDLEKQIKQLRNYRDNYQAFCK
WLYDRKRRQDSLES MKFGDSNTVMRFLNEQKNLHSEISGKRDKSEEVQKIAELCANSIKDYELQLASYTSGLETL
LNIPIKRTMIQSPSGVILQEAADVHARYIELLTRSGDYRFLSEMLKSLEDLKLKNTKIEVLEEELRLARDANSE
NCNKNKFLDQNLQKYQAEC SQFKAKLASLEELKRQAELDGKSAQNLDKCYGQIKELNEKITRLTYEIEDEKRRR
KSVEDRFDQQKNDYDQLQKARQCEKENLGWQKLESEKAIKEKEYEIERLRVLLQEEGTRKREYENELAKVRNHYN
EEMSNLRNKYETEINITKTTIKEISMQKEDDSKNLRNQLDRLSRENRLKDEIVRLNDSILQATEQRRRAEENAL
QQKACGSEIMQKQHLEIELKQVMQQRSEDNARHKQSLEEAAKTIQDKNKEIERLKAEFQEEAKRRWEYENELSK
VRNNYDEEIIISLKNQFETEINITKTTIHQLTMQKEEDTSGYRAQIDNLTRENRLSEEIKRLKNTLTQTENLRR
VEEDIQQQKATGSEVSQRKQQLLEVELRQVTQMRTEESVRYKQSLDDAAKTIQDKNKEIERLKQLIDKETNDRKCL
EDENARLQRVQYDLQKANS SATETINKLVQEQLTRLRIDYERVSQERTVKDQDITRFQNSLQELQKQKVEE
ELNRLKRTASEDSCKRKKLEEELEGMRSLKEQAIKITNLTTQQLQASIVKKRSEDDLQQRDVLGDHLEKQRT
QEELRRLSSEVEALRRQLLEQESVKQAHLRNEHFQKAIEDKSRSLNESKIEIERLQSLTENLTKEHLMLEELR
NLRLEYDDLRRGRSEADSDKNATILELRSQQLISNNRTLELQGLINDLQRERENLRQEIEKFQKQALEASNRIQE
SKNQCTQVVQERESLLVKIKVLEQDKARLQRLLEDELNRAKSTLEAETRVKQRLCEKQQIQNDLNQWKTQYSRKE
EAIRKIESEREKSEREKNLSRSEIERLQAEIKRIEERCRRKLEDSTRETQSQLETERSRYQREIDKLRQRPYGS
RETQTECEWTVDTSKLVFDGLRKKVTAMQLYECQLIDKTTLDKLLKGKKS

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FIGURE 369

AGTCTTGGCGGAGGTGACCAAAGCCACGTAATGTCCGTAGTTCGCTCATCCGTCCATGCCAGATGGATTGTGGGG
AAGGTGATTGGGACAAAAATGCAAAAGACTGCTAAAGTGAGAGTGACCAGGCTTGTTCTGGATCCCTATTTATTA
AAGTATTTTAATAAGCGGAAAACCTACTTTGCTCACGATGCCCTTCAGCAGTGACAGTTGGGGATATTGTGCTT
CTCAGAGCTTTACCTGTTCCACGAGCAAAGCATGTGAAACATGAACTGGCTGAGATCGTTTTCAAAGTTGGAAAA
GTCATAGATCCAGTGACAGGAAAGCCCTGTGCTGGAACTACCTACCTGGAGAGTCCGTTGAGTTCGGAAACCACC
CAGCTAAGCAAAAATCTGGAAAGAACTCAATATCTCTTCAGCACAGTGAAAGCGGGAGTGGAAGAAGGATCTAAAGG
GAAAAACTGACATGTTTATGTTATGGAAAAAGAAATTTTTCTAAGTTTCATCACAACCTGTGTCCAGTTTCTCTG
TGGTGTTTATGAAATAGCTAAAAGCAAATGAAGTAAAGGGCATACTATGGTTTTTCACAAAAAAAAAAAAAAAAAA

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FIGURE 370

MSVVRSSVHARWIVGKVIQTKMQKTAKVRVTRLVLDPYLLKYFNKRKTYFAHDALQQCTVGDIVLLRALPVPRAK
HVKHELAEIVFKVGKVIDPVTGKPCAGTTYLESPLSSETTQLSKNLEELNISSAQ

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FIGURE 371

CCAAGATGGCGGTGCTGTCAGCTCCTGGCCTGCGCGGCTTCGGATCCTTGGTCTGCGCTCCAGCGTGGGCCCCG
CTGTGCAGGCACGAGGTGTCCATCAGAGCGTGGCCACCGATGGCCCAAGCAGCACCCAGCCTGCCCTGCCAAAGG
CCAGAGCCGTGGCTCCCAAACCCAGCAGCCGGGGCGAGTATGTGGTGGCCAAGCTGGATGACCTCGTCAACTGGG
CCCGCCGGAGTTCTCTGTGGCCCATGACCTTCGGCCTGGCCTGCTGCGCCGTGGAGATGATGCACATGGCAGCAC
CCCGCTACGACATGGACCGCTTTGGCGTGGTCTTCGCGCCAGCCCGCGCCAGTCCGACGTCATGATCGTGGCCG
GCACACTCACCAACAAGATGGCCCCAGCGCTTCGCAAGGTCTACGACCAGATGCCGGAGCCGCGCTACGTGGTCT
CCATGGGGAGCTGCGCCAACGGAGGAGGCTACTACCACTATTCTACTCGGTGGTGAGGGGCTGCGACCGCATCG
TGCCCGTGGACATCTACATCCCAGGCTGCCCACCTACGGCCGAGGCCCTGCTCTACGGCATCCTGCAGCTGCAGA
GGAAGATCAAGCGGGAGCGGAGGCTGCAGATCTGGTACCGCAGGTAGCGCCGCCGCCGCCGCCGCCGGAGCCTGT
CGCCGTCTGTCCCCAGCCTGCTTGTGTCCCGTGAGGTTGTCAATAAACCTGCCCTCGGGCTGCCGCCAAAAAA
AA

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FIGURE 372

MAVLSAPGLRGFRILGLRSSVGPAVQARGVHQSVA TDGPSSTQPALPKARAVAPKPSSRGEYVVAKLDDLVNWAR
RSSLWPMTFGLACCAVEMMHMAAPRYDMDRFGVVF RASPRQSDVMIVAGTLTNKMAPALRKVYDQMPEPRYVVSM
GSCANGGGYYHYSYSVVRGCDRIVPVDIYIPGCPPTAEALLYGILQLQRKIKRERRLQIWYRR

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FIGURE 373A

ACTTGGCAAATCCGAAGATTTTCCGGGATCTTTCAAAGCCCATGGGGGCTCAGACCAAGGAAAGGAAGCTGAAAT
TTATCCAGAGGTTTAAAGAAGTTGAGAAAAGTGAAGGAGACATGACTGTCCAGTGCCACTACTACACCCACTACT
CCTCGGCCATCATCGTGGCCTCCTACCTGGTCCGGATGCCACCCTTACCCAGGCCCTTCTGCGCTTTGCAGGGCG
GAAGCTTCGACGTGGCAGACAGAATGTTCCACAGTGTGAAGAGCACGTGGGAGTCGGCCTCCAGAGAGAACATGA
GTGACGTGACGGGAGCTGACCCCAGAGTTCTTCTACCTGCCTGAGTTCTTAACCAACTGCAACGGGGTAGAGTTG
GCTGCATGCAGGACGGGACTGTGCTAGGAGACGTGCAGCTCCCTCCCTGGGCTGATGGGGACCCTCGGAAATTCA
TCAGCCTGCACAGAAAGGCCCTGGAAAGTGACTTTGTGAGTGCCAACTCCACCATTGGATAGACCTTATTTTTG
GGTACAAGCAGCAGGGGCCAGCCGAGTGGATGCTGTTAATATCTTCCACCCCTACTTCTACGGTGACAGAATGG
ACCTCAGCAGCATCACTGACCCCTCATCAAAGCACCATCCTGGGGTTTGTGACAACTTTGGACAGGTGCCCA
AACAGCTCTTTACCAAACCTCACCAGCCAGGACTGCAGCAGGGAAGCCTCTGCCTGGAAAGGATGTCTCCACCC
CCGTGAGCCTGCCTGGCCACCCACAGCCCTTTTTCTACAGCCTGCAGTCGCTGAGGCCCTCCAGGTCACGGTCA
AAGGTGATTCCCTGGCCATGCATTGTTTGGTGTCTGTCCAGGGTTGTCCCTTCAGTGGCTGGGTTCTCTGGA
GGTCCAGCACCATACCTGGGCAAAGTATTGGGGACTGACTTTGAATGGCTGCATCTCCAGTCACAGCCAGATT
CTAGGGGGGTGTCTCTGGAAGTGTCTAGGAGCTCCTCTGTTAGACCTAACTTCTGAAGACCCACGTCTCT
CTGTCTTTCTGTCTGTCTCTCTCACACACATACACACACAGACACCTCTTTCAGGCACACACACATCTCTCT
CCTCTTCTCTCTTTTATACATGCACACACATGTACACACACATACCTTCTCTCTCAAGAGACCAGTGGAGA
GTCCCAAGTTTACAAGGAAGGATTACAGCCTCTGTGCTTTGGCCACTGGTCTCTAAGCAGGGCAGGGGACTA
AGCTAAGCACTCTAAGCAGGCAGCCAGTAGCTAAGAACATGTGCTCTGGGGCAGATGGCCCAGGAGTGCATTCCA
GTCCTACTGCTTCTGACTGTGTGACCTTGGGCAAGCCATTGAACCTCCTTGTTCACGGGGATTGGAATAGCA
TTGAATGGATGCTACTACAGATTGTATTGATGCTTAGATAAATGAGCCTGCAGAGAGTTGGTGAGGAAAAGATG
AAAAACATGAGAAATAGGTTGAGCCAGTGAAGGGAGCCATGTGATTTAGGGAGGGAAGAGGGTCACCTGCGCCCT
ATTATTGAGAAACAGTTCTTCCAGGGACCAGGGGCTCCTCAACAAGGCCAGTCAGCAAGAGCGCAATGAGATGGG
CCACCTTCGGTGCCAGCACATAGTGGTGATTATTAGTCCATCTCTCTGACCATAATCAGTGGCTTCCTTGGC
TGCCACCAAGGCTCAGAGAGGCTCTATAGAAGCAGGAGTCCACTGGGGTGGGGGTGGTTCCACTGGGGTGGGGGT
GGTCCCAACCAGCCCAGGAGGGAGGATCTCCAGATGGAAGCAGAAGAGAGGGTGAGGCTGGGTTCTTAGGGCCA
TGTATGTATGAAGTCGGGTGCCAGTGTCTGAGGACATGCACTGCCTTGGGGAAATCCCACTACACTGAACAA
CATGCAGGTCCCAAGGAGTATGAAGTTAAGTTTTCAATGGTTTTAGTGGTGTCTTTTTATCCTTGAAGTCCAA
GAACAGTGTCAATTGGCACACCCACCTGGTAGATAAGGTGCTACTGCTCTTGGCTCTGGGGACCATGCCTCCAT
TTGCCCCAGGACTGGGGATCCGCTGCTGCATTGAAGTCCCTGGGCAGTCAGGCACAGCCCCTGCCCTCATGGAAA
GGGACATGAGGTGCAAACCATCAACAGTAACAAGGGAGCTCAAATCTCCCATGTGGGCTCCAGGAGACTGATG
CAGATCTTACCAGCCACGGGTCTTGGGATCCTTCTGAGGCTCAGTTTCTTCATGTGTAAGGTATGGAAGACAA
TGGCCCTGCCCTCAGGCTTGTGACAGTGCCATGAAGTGGTGTCTGTACACAGGCAGGCAACAAGCCAGCGCTGA
GGCAGGAGTCTTGGCAGATGCTGGTGCCACTCCGAGCACACACACTGGGCCTTGCTTTAAGGGGCTGGCTTTAC
TCTCTCCCTTTGATCTGAGCAGCCCCAGAAGGTAAGGGCCATTGATGCCACAGTCCCTTCCCTATGGGGAGAGAC
ATCTCACAGTCTTATCCTGGAGCCTTTCCTGAATCCTGCTCCCTCTCTTCTCTCTGGGTGGTAGGGTCAGGAAGA
GGGTGGTTCTCCCACTTCAACCAGCACAGGGCAAGGAAGGGAGTGGCCCCACCAGGAGGAAGGAAAGGCCCTTA
CGTGGTGGGTATGGTGTGCACAGTCTTAGAACTAGGCTGGCCTCAGTGTTTTGAGTCAACAAGCTGCACCAGGC
TCTGTGCCAGGGGACACACATTGAAAGGGGCATGGTTTTCTCTACTCCATGGGAAGAGGCTAGGGTCTGAAGAGA
TGGAATGACTTCAACAGCATAACCAGACTTGGAATGAGGTCTGGGCAGCTCCAAATCCCGTGCTGTGAGCCATAT
TCCAGCTGGGGCTGGGGGTGGCTCCAGAGTGGAGCTGAGGGAGGATGGGAATTGTGCCTCCCTGTGACTCCTGC
CCCGGGGCCCCGGCTACAGTGGGTGCTGTCTTCTGTGCATAAGTTCAAGTCCAGTGTGTCTGCCTGTCACTCCTG
CCCAGGGCCCAGCTGCAGTGGGTGCTGTCTTCCATGCTTAAGTTCAAGTCCAGTGTGTCTGCCTGTGACTCCTG
CCTGGGGGCCAGCTGTAGTGGGTGCTGTCTTCCATGCATAAGTTTCGCCATACTAACTGGGGGTGTAGATATGTA
CCTCTTTTCTCTAGGCTCAGAGTCCCCCAAAGGGGCCATTGGCCACATTGTCTCTACTGAGAAGACCATTTCTGGC
TGTAGAGAGGAACAAAGTGCTGCTGCCCTCTCTGGAACAGGACCTTCAGCTGGGGCTTTGATGACTTCAGCTG
CTGCTTGGGGAGCTACGGCTCCGACAAGGTCCTGATGACATTCGAGAACCTGGCTGCCTGGGGCCGCTGTCTGTG
CGCCGTGTGCCCATCCCCAACACGATTGTACCTCTGGGACCAGCACTGTGGTGTGTGTGTGGGAGCTCAGCAT
GACCAAGGCCGCCCGAGGGGCTTGCCTCCGGCAGGCCTTGTATGGACACACACAGGCTGTACGTGCCTGGC

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FIGURE 373B

AGCGTCAGTCACCTTCAGCCTCCTGGTGAGCGGCTCCCAGGACTGCACCTGTATCCTGTGGGATCTGGACCACCT
CACCCACGTGACCCGCCTGCCCGCCCATCGGGAAGGCATCTCAGCCATCACCATCAGTGACGTCTCAGGCACCAT
TGTCTCCTGTGCGGGAGCACACTTGTCCTGTGGAATGTCAATGGACAGCCCCCTGGCCAGCATCACCACAGCCTG
GGGCCCAGAAGGAGCCATAACCTGCTGCTGCCTGATGGAGGGCCCAGCATGGGACACAAGCCAGATCATCATCAC
CGGGAGTCAAGACGGCATGGTCCGGGTTTGGAAGACTGAGGATGTGAAGATGTCTGTTCCCTGGACGGCCAGCAGG
AGAGGAGCCCCCGGCTCAGCCTCCAAGCCCAAGAGGCCACAAGTGGGAGAAGAACCTGGCCTTGAGTCGAGAGCT
GGACGTTAGCATTGCTTTGACAGGGAAGCCAGCAAAACCAGCCCCGCAGTGACTGCTCTGGCCGTGTCCAGAAA
CCACACCAAACCTCCTGGTTGGTGATGAGAGGGGGAGAATATTCTGCTGGTCTGCAGATGGGTAGGAAGAGAGAGG
CAGCAGAGGCTCTGGCACAAACAGTGCCAGGCTGAGGGTGGCAGAGGTGACTGGGGCCTGAGCTCTGCCTACAGAA
GAAACCCCCAGGGCCTCCTTCCCCACAGTTCTCAAGGAAGGGCCTCTGGCAATCACAGCTCTGCAGCCCCAACCT
CTCCATGGCCGATGGGACTTCTATGAAAAGGATGAGCACACACACTCGGAGGGCTGAGCAGCACGCTGGAAACTG
TGACTTGGTGATGCCAGCTGCACACGAAATTACACATGACTCACCTTATTAAGGGCTATTGCACTGAAAAAAAA
AAAAGATGGGTCGCTTACTGGAAATTATTGTATTGCTTTATTTTATTAAAGCAACTATGTTTTAAATGC

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FIGURE 374

TTCGAATGAATGGGAAGACACGGTTGATGCAGTGGAGAGACATGTTTGACATTGCAGTTAAATGGAGAAGGATTG
CTGACCCAGACCAGCCCGTGTCTGTGGTTAGATCAAATGCCAGCACGAAGTCTTAGCAGAGGTTTTAACAACCACA
TTAATTTAATCAGGGGTCAGGTGATCAACATGAGATACCTAGAATATTTTGAGAAAATACTTCATTTTATTAAAG
ACAGAATTCTTGTTTATCATGGAGCTAATAATCCTAAAGGATTGCTGGAAGTTCGGGAAGCCCTGGAAAAGGTAC
ACAAAGTAGAAGACCTTCTTCCGATTATGAAGCAGTTTAATACTAAAACGAAGGATGGGTTACCGTGAACACAA
AAGTTCCAGCCTTAAAGACCAAGGGAAGGAATATGATGGATTACCAATCACGATTACAGGAGACAAAGTTGGCA
ATATATTATTTTCTGTGAAAACCTCAAACCACGGAAGAAAGGACACAATTATATCATGCTGAAATAGATGCACTTT
ATAAAGATTTGACAGCAAAAGGAAAAGTATTGATTCTTTCATCAGAATTTGGGGAGGCTGATGCTGTCTGCAACT
TAATCTTATCCTTAGTTTATTACTTTTATAATTTAATGCCACTCTCTCGAGGATCCAGTGTAATTGCTTACTCGG
TCATCGTGGGAGCACTGATGGCAAGTGGAAAAGAAGTAGCAGGAAAAATTCCCAAAGGGAAGTTAGTCGACTTTG
AAGCTATGACAGCCCTGTTTCAGAGGCCTTTAGCAAAGTCGCCAAAAGCTGGATGAACCTGAAAAGTATTTTAC
CTTCTTATAAGACTCTTCCATCAGTTTCAGAAACGTTTCCAACGTTAAGATCGATGATTGAGGTGCTAAACACAG
ACTCTTCTCCACGTTGTCTTAAGAAACTCTAGTTCTGCTGCTGTATTTTATACAAGTAAAGGGCCGGACCTCTTGC
TTCTTAAGTTATTTCTTAAACATGGAATTATAAAGAAATTAGGTCCTCTATTACTTTTGATACCAATTTTTATA
GGAATTGAATACTTGAAATCATTTTCTTTACTTTTCTGAACCATAATGAAAATCATGAAAGAGGCTTTCGGGGGG
AAAAAGCTACTTGACTTGAGGGGAAAGCGTATGTATTAGCCGGCAGCCTGTTGGTTCCCACTTATAAAGTCATAT
AACTCCTTCCTTACAGTAAAAAAATTTTCTCAACAATAAATACTGAAGATGAACAAAAACAAACC
AAATAGGAGTGTTTGTATTCTTTAGAGATCTGGATATTTTTCAAAGACTTGCTTTTACGCACATTGTGATAGA
GCATCTTTTGTGACTCACGTAACCTCCATGTGTGGTCTTTGTTTTATTAGAACCATGGAAGAAGGTTCTTG
GCCATCAGTATGTGTTGCAGAGCTCACAGCCAGGAACACTTATTTTGAACAATGCAGACAGTACTTGCCAGAGTC
CCAAATGCTGAATTATTGAACCATGTTTTTTTTTCTTTGTTGAAAAAATAAACCAGGGTGATTTCTATAAATC
ACCAGTTTTTGGCATTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 375

MNGKTRLMQWRDMFDIAVKWRRADPDQPVLWLDQMPARSLSRGFNNHINLIRGQVINMRYLEYFEKILHFIKDR
ILVYHGANNPKGLLEVREALEKVHKVEDLLPIMKQFNTKTKDGFTVNTKVPSLKDQGKEYDGFTITITGDKVGNI
LFSVETQTTEERTQLYHAEIDALYKDLTAKGKVLILSSEFGEADAVCNLILSLVYYFYNLMPLSRGSSVIAYSVI
VGALMASGKEVAGKIPKGLVDFEAMTAPGSEAFSKVAKSWMNLKSISPSYKTLPSVSETFPTLRSMIEVLNTDS
SPRCLKKL

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FIGURE 376

GTGCCAACAAACCCTGAACAGAGGAGGTGGCGGTGGTGGCCCTCGCCTGTGGCCCCCGTGCTGCTTGCACTCGA
ACTCGTCGCCATGGAGGAGCTCCAGGAGCCTCTGAGAGGACAGCTCCGGCTCTGCTTCACGCAAGCTGCCCCGGAC
TAGCCTCTTACTGCTCAGGCTCAACGACGCTGCCCTGCGGGCGCTGCAAGAGTGTGAGCGGCAACAGGTACGGCC
GGTGATTGCTTTCCAAGGCCACCGAGGGTATCTGAGACTCCCAGGCCCTGGTTGGTCCTGCTCTTCTCCTTCAT
AGTGTCCTCAGTGTTGTGTCAGGAGGGCGCTGGTGGTAGCTTGACCTTGTTGTGCCAACGCTTCCTCAGGTCTGGGCC
TAACAGCCTCCACTGCCTGGGCTCACTCAGGGAGCGCCTCATTATTTGGGCAGCCATGGATTCTATCCCAGCCCC
ATCATCAGTTTCAGGGACACAACCTGACTGAAGATGCCAGACATCCTGAGAGTTGGCAGAACACAGGAGGCTATTCT
TGAAGGAGATGCAGTATCACAGCCACAGATGGCAC TAGAGGAGGTGTCAGTGTGAGATCCACTGGCAAGCAACCA
AGGACAGTCACTCCCAGGATCCTCAAGGGAGCACATGGCACAGTGGGAAGTGAGAAGCCAGACCCATGTTCCAAA
CAGAGAACCTGTTTCAGGCACTGCCTTCCTCTGCCAGCCGAAACGCTCTGGACAAGAAACGTTTCAGTGCCTGTAGC
CACTGTAGAAGTGAAGAAAAGAGGTTTCAGAACTCTGCCTTTAGTGCCAAGCCCCCTACAAGGCCTGACCAATCA
GGATTTACAAGAGGGAGAAGATTGGGAGCAAGAAGATGAGGACATGGACCCAGATTAGAACACAGTTCCTCAGT
TCAAGAAGATTCTGAATCCCCAAGTCCTGAAGATA TACCAGACTACCTCCTGCAATACAGGGCCATCCACAGTGC
AGAACAGCAACATGCCTATGAGCAGGACTTTGAGACAGATTATGCTGAATACCGCATCCTGCATGCCCGTGTGG
GACTGCAAGCCAAAGGTTTCATAGAGCTGGGAGCAGAGATTAAGAGGTTTCGGCGAGGAACTCCAGAATACAAGGT
CCTGGAAGACAAGATAATCCAGGAATATAAAAAGTTCAGGAAGCAGTACCCAAGTTACAGAGAAGAAAAGCGTCG
CTGTGAGTACCTTCACCAGAAATTGTCCACATTAAAGGTCTCATCCTGGAGTTTGAGGAAAAGAACAGGGGCAG
CTGAAGTTATCAAGGGAATTTTGTAGCCTCTGCTTAGTGAAACACAAAGGAACAAAGCAGCTATAAACTAAATAG
AATGCAACTATCTGCTTTTCTTATGCTGACCACTGGAGTCCATGGTGGCAAGTAGAGAGCTGCTCTAGGTTCTTG
AGGTTTGGTTTTTATTATTAATTTTTAGGGTATGGGCACTGTGCAAAGACTCCATAGCTGTGCCTAGGAGTCTAG
GAAAAGTGACAGAGGCTTGGCTTTTTTACCTTTAGTTTCAGCCAAGTCATTTTCAAGTCCTGAGAAATGACATCAT
CTTCAGGATAAAATAATGAGGACATTAGACAAACCAAACTAAGTGAATTTTAGCCTGGTAGCCTCTCTAAGGAAA
CAGTAATAATAACTTCTGATAAGAGTTAAAAGAAC TTGTAGCATACTGGATATAATGGGAAAGGGCCTGGGTGT
TACCCATGTACTGAAAATGAACTTTTACCAACATGGCTAAAAAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 377

MEELQEPLRGQLRLCFTQAARTSLLLLRLNDAALRALQECQRQQVRPVIAFQGHRYLRLPGPGWSCLF SFIVSQ
CCQEGAGGSLDLVCQRFLRSGPNSLHCLGSLRERLIIWAAMDSIPAPSSVQGHNLTEDARHPESWQNTGGYSEGD
AVSQPQMALEEVSVDPLASNQGQSLPGSSREHMAQWEVRSQTHVPNREPQALPSSASRKRLDKKRSVPVATVE
LEEKRFRTLPLVPSPPLQGLTNQDLQEGEDWEQEDEDMDPRLEHSSSVQEDSESPSPEDIPDYLLQYRAIHSAEQQ
HAYEQDFETDYAEYRILHARVGTASQRFIELGAEIKRVRRGTPEYKVLEDKIIQEYKKFRKQYPSYREEKRCEY
LHQKL SHIKGLILEFEEKNRGS

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FIGURE 378

GGGCTTCGTGTTCCCTGGGTGCTGACCGTGCACTCCCCGCCGCCGAGGACTTAGAGCTCTGGAAGTAGCTCTCCA
GCTTCCTTCGTACTCGGGGGCCGGACTTGTACACCCGCACGAGGAGCGGGGACGGCGGGCGCAGAAGTGGGCCAC
CATATCTGGAAACTACAGTCTATGCTTTGAAGCGCAAAGGGAATAAACATTTAAAGACTCCCCGGGGACCTGG
AGGATGGACTTTTCCATGGTGGCCGGAGCAGCAGCTTACAATGAAAAATCAGGTAGGATTACCTCGCTCTCACTC
TTGTTTCAGAAAAGTCTTTGCTCAGATCTTTCCTCAGTGGAGAAAGGGGAATACAGAAGAATGTCTCCCTACAAG
TGCTCAGAGACTGGTGCTCTTGAGAGAAAACATATAGTTGGCAAATTTCCATTAAACCACAATGACTTCAAAATTTTA
AAAAATAATGAGCGTCAGCTGTGTGAAGTCTCCAGAATAAGTTTGGCTGTATCTCTACCCTGGTCTCTCCAGTT
CAGGAAGGCAACAGCAAATCTCTGCAAGTGTTCAGAAAAATGCTGACTCCTAGGATAGAGTTATCAGTCTGGAAA
GATGACCTCACCACACATGCTGTTGATGCTGTGGTGAATGCAGCCAATGAAGATCTTCTGCATGGGGGAGGCCTG
GCCCTGGCCCTGGTAAAAGCTGGTGGATTTGAAATCCAAGAAGAGAGCAAACAGTTTGTGGCAGATATGGTAAA
GTGTCAGCTGGTGAGATAGCTGTCACGGGAGCAGGGAGGCTTCCCTGCAAACAGATCATCCATGCTGTTGGGCCT
CGGTGGATGGAATGGGATAAACAGGGATGTACTGGAAAGCTGCAGAGGGCCATTGTAAGTATTCTGAATTATGTC
ATCTATAAAAAATACTCACATTAAGACAGTAGCAATTCACGCCTTGAGCTCTGGGATTTTTCAGTTCCCTCTGAAT
TTGTGTACAAAGACTATTGTAGAGACTATCCGGGTAGTTTGCAAGGGAAGCCAATGATGAGTAATTTGAAAGAA
ATTCACCTGGTGAGCAATGAGGACCCTACTGTTGCTGCCTTTAAAGCTGCTTCAGAATTCATCCTAGGGAAGAGT
GAGCTGGGACAAGAAACCACCCCTTCTTTCAATGCAATGGTTCGTGAACAACCTGACCCCTCAGATTGTCCAGGGC
CACATTGAATGGCAGACGGCAGATGTAATTGTTAATTCTGTAAACCCACATGATATTACAGTTGGACCTGTGGCA
AAGTCAATTCTACAACAAGCAGGAGTTGAAATGAAATCGGAATTTCTTGCCACAAAGGCTAAACAGTTTCAACGG
TCCAGTTGGTACTGGTCACAAAAGGATTTAACTTGTCTGTAAATATATATACCATGTACTGTGGCATTACAGAA
TTTCTTAAACCTCAGATATTAAAACATGCAATGAAGGAGTGTGTTGGAAAAATGCATTGAGCAAAATATACTTCC
ATTTCTTTCTGCCCCTGGGACTGGAAACATGGAAATAAAGAAGGAAACAGCAGCAGAGATTTTGTGTTGATGAA
GTTTTAATATTGCCAAAGACCATGTAAAACACCAGTTAACTGTAAATTTGTGATCTTTCCAACAGATTTGGAG
ATATATAAGGCTTTTCAGTTCTGAAATGGCAAAGAGGTCCAAGATGCTGAGTTTGAACAATTACAGTGTCCCCCAG
TCAACCAGAGAGGAGAAAAAGAGAAAAATGGGCTTGAAGCTAGATCTCCTGCCATCAATCTGATGGGATTCAACGTG
GAAGAGATGTGTGAGGCCCCACGCATGGATCCAAAGAATCCTGAGTCTCCAGAACCACCACATCATTGAGAATAAT
CATATTCTGTACCTTGGGAGAAAAGGAACATGACATTTTGTCTCAGCTTCAGAAAACTTCAAGTGTCTCCATCACA
GAAATTATCAGCCCAGGAAGGACAGAGTTAGAGATTGAAGGAGCCCGGGCTGACCTCATTGAGGTGGTTATGAAC
ATTGAAGATATGCTTTGTAAAGTACAGGAGGAAATGGCAAGGAAAAAGGAGCGAGGCCTTTGGCGCTCGTTAGGA
CAGTGGACTATTACAGCAACAAAAACCCAAGACGAAATGAAAGAAAAATATCATATTTCTGAAATGTCCGTGTCCT
CCAACCTCAAGAGCTTCTAGATCAAAAAGAAACAGTTTGAAAAATGTGGTTTGCAGGTTCTAAAGGTGGAGAAGATA
GACAATGAGGTCCCTTATGGCTGCCTTTCAAAGAAAGAAGAAAAATGATGGAAGAAAACTGCACAGGCAACCTGTG
AGCCATAGGCTGTTTCAGCAAGTCCCATACCAAGTTCTGCAATGTGGTATGCAGAGTTGGCTTTCAAAGAATGTAC
TCGACACCTTGCGATCCAAAATACGGAGCTGGCATATACTTCACCAAGAACCTCAAAAACCTGGCAGAGAAGGCC
AAGAAAATCTCTGCTGCAGATAAGCTGATCTATGTGTTTGGAGCTGAAGTACTCACAGGCTTCTTCTGCCAGGGA
CATCCGTTAAATATTGTTCCCCCACCCTGAGTCCCTGGAGCTATAGATGGTCATGACAGTGTGGTTGACAATGTC
TCCAGCCCTGAAACCTTTGTTATTTTGTAGTGGCATGCAGGCTATACCTCAGTATTTGTGGACATGCACCCAGGAA
TATGTACAGTCACAAGATTACTCATCAGGACCAATGAGACCCTTTGCACAGCATCCTTGGAGGGGATTTCGCAAGT
GGCAGCCCTGTTGATTAACTCTCTACATCATTTTAAACAGCTGGTATGGCCTTACCTTGGGTGAACTAACCAATAA
TGACCATCGATGGCTCAAAGAGTGGCTTGAATATATCCCATGGGTTATCTGTATGGACTGACTGGGTATTGAAA
GGACTAGCCACATACTAGCATCTTAGTGCCCTTTATCTGTCTTTATGTCTTTGGGGTTGGGGTAGGTAGATACCAA
TGAAACACTTTTCAGGACCTTCCCTTCTTGCAGTTGTTCTTTAATCTCCTTTACTAGAGGAGATAAATATTTTG
CATATAATGAAGAAATTTTTCTAGTATATAACGCAGGCCTTTTATTTTCTAAATGATGATAGTATAAAAAATGTT
AGGATAACAGAATGATTTTAGATTTTCCAGAGAATATTATAAAGTGCTTTAGGTATGAAAATAAATCATCTTTGT
CTGATTAAAAA

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FIGURE 379

MDFSMVAGAAAYNEKSGRITSLSLLFQKVFAQIFPQWRKGNTTEECLPYKCSETGALGENYSWQIPINHNDFKILK
NNERQLCEVLQNKFGCISTLVSPVQEGNSKSLQVFRKMLTPRIELSVWKDDLTHAVDAVVNAANEDLLHGGGLA
LALVKAGGFIEIQEESKQFVARYGKVSAGEIAVTGAGRLPCKQIIHAVGPRWMEWDKQGCTGKLQRAIVSILNYVI
YKNTHIKTVAIPALSSGIFQFPLNLCTKTIVETIRVSLQGKPMMSNLKEIHLVSNEEDPTVAAFKAASEFILGKSE
LGQETTPSFNAMVVNNLTQIVQGHIEWQTADVIVNSVNPHTITVGPVAKSILQQAGVEMKSEFLATKAKQFORS
QLVLVTKGFNLFCYIYHVLWHSEFPKPQILKHAMKECLEKCIEQNITSISFPALGTGNMEIKKETAAEILFDEV
LTFKADHVKHQLTVKFVIFPTDLEIYKAFSSEMAKRSKMLSLNNYSVPQSTREEKRENGLEARSPAINLMGFNVE
EMCEAHAWIQRILSLQNHIIENNHILYLGRKEHDILSQLQKTSSVSITEIISPGRTELEIEGARADLIEVVMNI
EDMLCKVQEEMARKKERGLWRS LGQWTIQQKTQDEMKENIIFLKCPVPTQELLDQKKQFEKCGLQVLKVEKID
NEVLMAAFQRRKKMMEEKLHRQPVSHRLFQQVPYQFCNVVCRVGFQRMYSTPCDPKYGAGIYFTKNLKNLAEKAK
KISAADKLIYVFEAEVLTGFFCQGHPLNIVPPPLSPGAIDGHDSVVDNVSSPETFVIFSGMQAIPQYLWTCTQEY
VQSQDYSSGPMRPFQAHPWRGFASGSPVD

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FIGURE 380

AAGCAATTAACAAAGAAGGAACATTTACAGTTCAGTTTTATGATGGAGTAATTCAGTTGTTTAAAAAGAATGCAC
ATTAAAGCCATGCCCCGAGGATGCTAAGGGGCAGGTGAAATCCCAGCATCCACTAAGCTGGTGTTGTCCTATCGAC
CCAGCTGGATCGTGTAACCAGTCTATGGGAAGTGAGGATTGGATAGCTTTAGTCAAAGCAGCTGCTGCAGCTGCA
GCCAAGAACAAAACAGGGAGTAAACCTCGAACCAGCGCTAACAGCAATAAAGATAAGGATAAAGATGAGAGAAAG
TGGTTTAAAGTACCTTCAAAGAAGGAGGAACTTCAACTTGTATAGCCACACCAGACGTAGAGAAGAAGGAAGAT
CTGCCTACATCTAGTGAAACATTTGGACTTCATGTAGAGAACGTTCCAAAGATGGTCTTTCCACAGCCAGAGAGC
ACATTATCAAAACAAGAGGAAAAATAATCAAGGCAACTCGTTTTAGGCAAAGAGAGCTCGACTTAACAAGATTACT
GGTTTGTGTCATCCAAAGCTGTTGGGGTTGATGGTGCTGAAAAAAGGAAGACTACAATGAAACAGCTCCAATG
CTGGAGCAGGCGATTTCACCTAAACCTCAAAGTCAGAAAAAAATGAAGCTGACATTAGCAGTTCTGCCAACACT
CAGAAACCTGCACTGTTATCCTCAACTTTGCTTTCAGGGAAGGCTCGCAGCAAGAAATGCAAACATGAATCTGGA
GATTCTTCTGGGTGTATAAAACCCCTAAATCACCACCTTTCCCCAGAATTAATACAAGTCGAGGATTTGACGCTT
GTATCTCAGCTTTCTTCTTCAGTGATAAATAAAAC TAGTCCTCCACAGCCTGTGAATCCCCCTAGACCTTTCAAG
CATAGTGAGCGGAGAAGAAGATCTCAGCGTTTAGCCACCTTACCCATGCCTGATGATTCTGTAGAAAAGGTTTCT
TCTCCCTCTCCAGCCACTGATGGGAAAGTATTCTCCATCAGTTCTCAAATCAGCAAGAATCTTCAGTACCAGAG
GTGCCTGATGTTGCACATTTGCCACTTGAGAAGCTGGGACCCTGTCTCCCTCTTGACTTAAGTCGTGGTTCAGAA
GTTACAGCACCGGTAGCTCAGATTCCTCTTACCCTAATGAATGTCCCAGGGCAGAAAAAGAGGATACACAGATG
CTTCCAAATCCTTCTTCCAAAGCAATAGCTGATGGAAGAGGAGCTCCAGCAGCAGCAGGAATATCGAAAACAGAA
AAAAAAGTGAAATTGGAAGACAAAAGCTCAACAGCATTTGGTATCAGGAGTTGGGATTTCTCAGCACTGCTAATG
AAGATCCCCCTCTTATAGTCCAATAAGCTTATCAGGACTTCCAGAGTCATTGACATGAACAGTTTAATTGAACCCAT
CCACTCTGGGCAGGTGACTGGAATAGCTGATTAACATAAATGCTGCTTTTAGGTTAACCACAAAGGAACAACCT
CAGGATCAGTCGTGATTGCTAAAGTATTCACTTTTATCTTTTAGGTAAGAGAAAAAGAAAAAGATAAGGAAAGAAG
AGAGAAGAGAGACAAAGATCACTACAGACCAAAACAGAAGAAGAAGAGGCACCTCTGGTACTGAAGATTCCTGCT
GATTTTGAGAACTGGATGGAGAATACTTTCCCATCAGGGGCTGGAGAGGGAGAAGAAACCTTTTTCTACAGAATC
ATCAGGCATGGGTAAGGTGGCTAACGCTGAGATCTCTT

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FIGURE 381

MHIKAMPEDAKGQVKSQHPLSWCCPIDPAGSCNQSMGSEDWIALVKAAAAAAKNKTGSKPRTSANSNKDKDKDE
RKWFKVPSKKEETSTCIATPDVEKKEDLPTSSETFGLHVENVPKMVFPQPESTLSNKRKNNQNSFQAKRARLNK
ITGLLASKAVGVDGAEEKEDYNETAPMLEQAISP KPQSQKKNEADISSANTQKPALLSSTLSSGKARSKKCKHE
SGDSSGCIKPPKSPLSPELIQVEDLTLVSQLSSSVINKTSPPQPVNPPRPFKHSEERRRSQRLATLPMPPDDSVK
VSSPSPATDGKVFSISSQNQQESSVPEVPDVAHLPLEKLGPCLPDLDSRGSEVTAPVASDSSYRNECPRAEKEDT
QMLPNPSSKAIADGRGAPAAAGISKTEKKVKLEDKSSTAFGIRSWDFSALLMKIPSYSPISLSGLPES

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FIGURE 382

GGGGGAAGATGCGCGACGTGCTTAGCGTCTGCGACAGTACAACATCCAGAAGAAGGAGATTGTGGTGAAGGGAG
ACGAAGTGATCTTCGGGGAGTTCTCCTGGCCCAAGAATGTGAAGACCAACTATGTTGTTTGGGGGACTGGAAAGG
AAGGCCAACCCAGAGAGTACTACACATTGGATTCCATTTTATTTCTACTTAATAACGTGCACCTTTCTCATCTG
TTTATGTCCGACGTGCAGCTACTGAAAATATTCCTGTGGTTAGAAGACCTGATCGAAAAGATCTACTTGGATATC
TCAATGGTGAAGCGTCAACATCGGCAAGTATAGACAGAAGCGCTCCCTTAGAAAATAGGTCTTCAGCGATCTACTC
AAGTCAAACGAGCTGCAGATGAAGTTTTAGCAGAAGCAAAGAAACCACGAATTGAGGATGAAGAGTGTGTGCGCC
TTGATAAAGAGAGATTGGCTGCCCGTTTTGGAGGGTCACAAAGAAGGGATTGTACAGACTGAACAGATTAGGTCTT
TGTCTGAAGCTATGTCACTGGAATAAATTGCTGCAATCAAAGCCAAAATTATGGCTAAGAAAAGATCTACTATCA
AGACTGATCTAGATGATGACATAACTGCCCTTAAACAGAGGAGTTTTGTGGATGCTGAGGTAGATGTGACCCGAG
ATATTGTCAGCAGAGAGAGAGTATGGAGGACACGAACAACCTATCTTACAAAGCACAGGAAAGAATTTTTCCAAGA
ACATTTTGTCAATTCTTCAATCTGTAAAAGCCAGAGAAGAAGGGCGTGACCTGAACAGCGACCTGCCCCAAATG
CAGCACCTGTGGATCCCACTTTGCGCACCAACAGCCTATCCAGCTGCCTATAACAGATACGATCAGGAAAGAT
TCAAAGGAAAAGAAGAAACGGAAGGCTTCAAATTTGACACTATGGGAACCTACCATGGTATGACACTGAAATCTG
TAACGGAGGGTRCATCTGCCCGGAAGACTCAGACTCCTGCAGCCAGCCAGTACCAAGACCAGTTTCTCAAGCAA
GACCTCCCCCAAATCAGAAGAAAGGATCTCGAACACCCATTATCATAATTCCTGCAGCTACCACCTCTTTAATAA
CCATGCTTAATGCAAAGACCTTCTACAGGACCTGAAATTTGTCCCATCAGATGAAAAGAAGAAACAAGGTTGTC
AACGAGAAAATGAACTCTAATACAAAGAAGAAAAGACCAGATGCAACCAGGGGGCACTGCAATTAGTGTTACAG
TACCTTATAGAGTAGTAGACCAGCCCCTTAACTTATGCCTCAAGACTGGGACCGCGTTGTAGCCGTTTTTGTGC
AGGGTCTGCATGGCAGTTCAAAGGTTGGCCATGGCTTTTGCCTGATGGATCACCAGTTGATATATTTGCTAAAA
TTAAAGCCTTCCATCTGAAGTATGATGAAGTTCGTCTGGATCCAAATGTTGAGAAATGGGATGTAACAGTATTAG
AACTCAGCTATCACAAACGTCATTTGGATAGACCAGTGTTCTTACGGTTTTTGGGAAACATTGGACAGGTACATGG
TAAAGCATAAATCGCACTTGAGATTCTGAATTATTTGGCTCCTCCATTTCTGGAAATTGAGACTCAAGCTTTATG
AATTTATCAAGAACTTAAAAATGAAGAAGGTCACAGATTGATCTTTTATAAGACCTTATTTGATGCTTTGTGCTT
CAAGGAGATGATACCTGTCATCCATATAAGCAAACTTTTTGGCTTACAACCTATTTTTTAAATATTAGCCTTCTAG
TCTGTAATGGAAATTGTATATTTTGATAGAAGTTTTTCTCCATTGGTTAAATTAGCATTACTTAAAATTTGTTT
CTTTAGAAAATAAATGCAGGTTATAAATGTGTGTAATTTAGAGATTATAAGGCTCTCTGAGCCATCTTCTGATT
TTTCATTGCTCTATAATTCTTTTTACTGAAAATACATATGTTATGAATGGTATTAAATTTTAGTCTCTGGAACATC
CAAAACCAAGCAAAGGGATGTGACTATTTTGAATGAATCAGAATGTCAACTTGATGTACACTATATCTACACTT
ACTCATTATTTAAAAAGAATAATGAAAAATCTAGATCAATTCTTCAATTTGATTGAACTGTTGAGCCTTTTCAAG
ATTTCTTTATTTACAAATGATTACATTTAAATGAATGTACATTCTCTCACTGACTTTGGTGATTTTGAAACCTA
GAATGATGTGTTTCTATCTGTAATATCTTTCCATTTGAAAAAATCTCAAAACACAGATTAACCAC

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FIGURE 383

MADVLSVLRQYNIQKKEIVVKGDEVIFGEFSWPKNVKTNYVVWGTGKEGQPREYYTLDSILFLLNNVHLSHPVYV
RRAATENIPVVRPDRKDLLGYLNGEASTSASIDRSAPLEIGLQRSTQVKRADEVLAEAKKPRIEDEECVRLDK
ERLAARLEGHKEGIVQTEQIRSLSEAMSVEKIAAIKAKIMAKKRSTIKTDLDDDDITALKQRSFVDAEVDVTRDIV
SRERVWRTRTTILQSTGKNFSKNIFAILQSVKAREEGRAPEQRPAAPVDPVTLRTKQPIPAAYNRYDQERFKG
KEETEGFKIDTMGTYHGRTLKSVTEGXSARKTQTPAAQPVPRPVSQARPPNQQKGSRTPIIIIPAATTSLITML
NAKDLLQDLKFVPSDEKKKQGCQRENETLIQRRKDQMPPGGTAISVTPYRVVDQPLKLMPQDWRVAVFVQGP
AWQFKGWPWLLPDGSPVDIFAKIKAFHLKYDEVRLDPNVQKWDVTVLELSYHKRHLDRPVFLRFWETLDRYMVKH
KSHLRF

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FIGURE 384A

CTCCCACCCCGTCCTCTTGGCTCGGAAGGGAGACCTGGTTGGCTCTCCTCCATGACAGCCAGCCCCGCTGTGCAC
AGGGGTGGGGCTCGGGATCCCTCCCTGCACCCTGATGTTTTATTAACTGTAGATAGTGAATGTCAAGTTGACAGGT
ACCTTCTCAGGGATTATATATAAATATAGTTAGAGGAAGAAGTTGAAGTCTATTTTACTACTTTTTAGTGTGTTG
AGTAAATTGATGCTTTAACTGGACAGAACAACATAATTTCTCAGACAATGTCGATGCTGCTGATGACGAAGTGA
TGCTTGGAGCTCACCCITGATGGAGACTTCCTGTGGTGATGGGAGATGGGGACTCTGGTGGCAGAAATGGCTTG
GGGTAGGTGTGAAGTTGCTTCAGTCCCTCTGAGTTGCCTCTTGTGGATGGAACGTGTGTATCGAACAATAATGA
AATGCACCTCCGTGTGCATGGAGGCGGCTGATGAGAATACGAGATAGGCCAGTCTCGCGTCTTCCCTCCAGAAC
CGGCCGCTCCCGTCTGACGTTGGAGCACGTGAAC TAAGAGTGACAATTTTTTCTACTTGCTTCTGTGAATAAAG
TGTTCTACAGTCAGCCCAGCACTAACTCACCAGAAAAGAGGAGGGAACAGCACGGAGCCATTCTCTGGAATTA
CTCGATGTGCAGAGGCTGCCCCTTGGCCGCACTTGGGAACATCGTGGACATCTTCCCTCCTCTCAGGCTCCTCCT
GACAGACTCCTGGCAGCACTGGAGACCTCAGGACTATGGAGATCAGAATTGTAATGGCTTTGTCTCTCAGTGTG
GCCACTCCTGAGGCAAGAGGCTCCTCCTGGGAGCAGGAGAGAGAGAGTTTGTGATGTTGGTTGGAAAATAGGATT
TATGGATGCAGGAGGGCCGTGCTAGGCCCTCTGCCGCTTCTCTCCCTGCTGTTGGCGGTGACCAGGTCTCAGG
AGCGGAGACGAGGCTGTTGTGAGTGAAACAGAAGCCCTGGCATAGGGCCAGACCCTAGGCCTGAAAAGGATGCA
AAGCCTGCTGTTTTAGGCTGTTGGGAAGAATCGTGCGTACCGAGTGATTATGATGAAACGTATCCCAGAGAGGA
AATGAATGGGACCTGAAAAGTGGGTCTGCCACATCCCTGGTAGCCCGCCTCCAAGAGCACTACACTCCCCCAGC
CCCACCGCCACACTACATGACGTGGGAAGGCTGTCCGTTCTATCCTTACCCTGGGGACTCAAGTGTGCTCTGCGG
AGTGAGTCACAGCCCTGATGTGCACCCTGCACTACTCTTTCCCCAGGTGCGCCGAGACGCAGGCTTGCTCATTT
CCGTCTGACACAGCTCGCTGTTCTGCGGTGGTCAGAGTCCCCCTGTGCTGTGTCAGCTCCTGGACACTACTAG
TCTTTACATGATAAAGCGCGAGCACTTTTTCGCTTTTGCAGTATTTGGGGAATTTCTAACACATTTCCCGGGGA
TTTGGCCAGGTCCCTCCACCTCCCACGGTGGGTAACTGTGTGGATTCTGCACCTGGCAATCGGCGCTCCCTTTG
GAAACACCTGGGGGCCCTGTTTCTTCCAGCCTGGTCTTGGTTTCTACCCAGCCGCTTTCAGCCGGCACCTGCA
TGGGACTGCCTGGAGGGCCACGGTCCAGGGAAGGACAGGTGGGACCCTGACCATGACAGATCTTTCTAAAACAAT
AAAGTCCCATTTGATGACAACCTGCAGTGGGATGAATGCCATTGCAGCGGTGCTGCTGGGAGCTGCCGAGAGCTTAC
AACAAAAGCAGTTCCTCTCAAGACACTGCTTGATCTTCCCTCCACGCTCTCGGTGCATTTGGAACCTGTTTTAT
GCGCTGGTATAACTCGAGTCAGCTGCTTATTTCTGTGCCCTTGCACTCACAGGTTCTTCAATTAACATTTTAAAT
AAGTGGCTAAAAAACTCCTCTGGAGGTTGTTTTTGAAGAGACAGGAAAAAGAAACACACAGTACCTGGATTGT
TTTGACTTATTTTCAAGCGACTCAGCTGAAAGCCGGTGTGTCATACACAATTTCTCAGCTGACCCAGCCTGAC
TAAGACTTGATAAAAGGCACAGCCCTTGGCAGCAGGCAGTGCCAAATGTGGACAGGTACACTAAGCTGTGAGTGT
GTGCACGGGCGAGCACATGTATGTACTCATACTCAGATGAACTAAAGGGACACTGGGCTTTGTGCTGGCAA
AGGTTACGATGCTGCTGTAGCTTGGCTGTGGGCCCCAGGCAGTGTGAGTGAACCTGCTTTGATGGCGTGTGT
TCAGTGTACTCAGTGGGGTCTCATATGGCCGAGGACCACTGTGAGCACTCCGCCCCGCTGTGGCACAGAACAG
GCTGGGGTCACTACAGCCCAGGTCTTTATTGAAAGGCGGCTCATATAGAACCATTGAGCCAGGTCTGGGCCATC
TCTCTGCCTCTGCCCTATCTTGGCTGCCTGGAGGGGCCAGGCCAAGAGGATTCTTTACCCCTGGAAGAGCTCC
CCAGGCATTACGCCTATGGCCCTTGACATTTGGCTGCAGGTTACCGTCAGAATCAACACCATATCCTGAGGAAGC
CCTGGTATTTCCCCAAGTCTGCCTATGTATTAGACACTCTAATCAATGCTAACACAGTTTCAAGTTTTGAGGGAAC
TAGTTTTGTCTATAATACTACACCCCTCTATTGTTTTTAAATAAGAAAAAACCACGAACTTTCCATCA
AAGCAATGGTCCGTGTTGGCCTGATGCTTTAAGAAGTTTGAGGAGGTAGGTATGGAGGCACCTTAACACCAGTTT
TTGAGCAGAAGTTCTAGAAGCTGATTTAGAACTACACAGCTATGGATACACCTGATGAAAACCGCAAAAGGCGAT
GACAGGCCCAGAAATATGACCAGCAAGCCCGTGAGCCTTTGGGGCATCCGACTGAATTTGAAAATAATACCCCAT
TCAGATGAACATTAAGCCAATGTACTGGAATTCCTTTGTTCTGCCCGACATTTGGGGGTGTCCAAGGACCTG
TGTTTTTAACAAAGATGACTTTATGACCGTTCTAAGGATTGAACAGATTCTGTCACAGGCTGCCAGGTTTCAAGT
TAGGTCTCTTAGTATAAGCTCTCTTTTTTCTGAATGTAAACCTATTTGCATTGTCAATTTCTAATAATCCAGTA
GGTTTTCTGGATATTGTAAAGATACTGAGTACAGATATAACTGTGTAAATTTTCATAGTGTTTTATTTGAGGTGAG
AGTTTTGTTATAGTTTATAAAAGATATTTTCTATTTCAGACCTCAGGGCTATTTTGGGACCTACAAATAAATGTG
ATTCCAGCAGCTTCAATTTTTGATATTCAAAAAGTTAATAATCTTTAAGCTAAATATAATGTGATATGATTGAG
AAAAAATGTTTTTCCCTTTTAACTTCTAACAAATTATGTATCTAATGTTTAAAAAATATGGAAAAAGGGATAA
TGTAATAATGTGGGAGAATTGTGGCTAAAGAATAAAAAATCACTTGTTAAACGCATTCTTATGGTACAAATGTG

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FIGURE 384B

TGATATTTAAATAAACTTAAGTGTGTATAAATTAGAGAATG

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FIGURE 385

LPPRPLGSEGRPGWLSSMTASPAVHRGGARDPSLHPDVY

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FIGURE 386

TTCCAGCTCACTTGCGGTGGCAGCACAACTTAGGGAAATAATACCATCCAGTGCTTTGCCTAATGGCACAGTTCA
GCATATCCTC**ATG**CCAGATGATGAAGGTGAAGGTGAATTGTGTTGGAAAAAGTAGACTTAGGGGACATGAAGAA
TGTGGATGTCTTATCTTTTCAGTCATGCTCCTTCATTCAATTTTCTTTCTAATTCATGTTGGTCTAAACCAAAGGA
AGATAAAGCAGTAGATACATCAGATTTGGAAGTTGCAGAAGATCCTATGGGCCTCCAAGGAATAGATCTGATCAC
AGCAGCATTGCTTTTTTGTCTAGGAGATTCTCCAGGAGGGAGGGGTATATCTGATAGCCGCATGGCTGATATTTA
TCACATTGACGTTGGGACTCAGACTTTTTCACTTCCATCTGCAATATTAGCTACAAGTACAATGGTTGGGGAGAT
AGCTTCAGCTTCAGCTTGTGATCATGCCAATCCACAGCTTTCAAATCCAAGTCCGTTTCAGACACTTGGGCTGGA
TTTAGTATTGGAATGTGTCGCTAGGTACCAACCAAGCAGCGTTCAATGTTTACCTTTGTGTGTGGACAGTTATT
TAGAAGGAAAGAATTTTCTTCCCACTTTAAGAATGTGCATGGTGACATTCATGCTGGACTCAATGGCTGGATGGA
ACAGAGGTGCCCTTTAGCTTACTATGGTTGTACCTATTCTCAGCGTAGATTTTGTCCATCAATACAAGGAGCAAA
GATTATACATGACCGCCATTTGAGGTCATTTGGAGTTTCAGCCATGTGTATCTACAGTATTAGTGGAGCCTGCTAG
AAACTGTGTGTTGGGATTACATAATGACCATCTAAGTAGTCTTCTTTTGGAGTCTGCAGCATATTGCAGGCTT
TCTCGATGGCTTCAGCTTATGTCAGCTCTCATGTGTATCCAAGTTAATGAGGGATGTGTGTGGCAGCCTGCTTCA
GTCTCGTGGCATGGTCATACTGCAGTGGGGGAAAAGGAAGTATCCAGAAGGAAATTCATCATGGCAGATAAAAGA
AAAGGTATGGCGATTTAGTACTGCATTTTGTCTGTTAATGAATGGAAATTTGCTGACATCCTAAGCATGGCAGA
CCACTTGAAGAAATGCAGTTACAATGTTGTGAGAAACGGGAGGAAGCAATCCCTTTGCCATGTATGTGTGTGAC
ACGAGAACTCACTAAAGAAGGACGTTCACTACGCTCAGTTTTAAACCTGTACTTT**TAAA**AGTTGTAATATTACTA
GCACATATATGCAAGCACCTAGTATAATTTCTTTGTAATATGTGAACTTTATTAATGTATTAAATATTACAAC
AGCTAAATTTATTGTCACTGTGTATATAATGTTTTGAAGTGACATCTATTTTTATAAAGTACTGTTTAGTTGGAA
AAAGTTGCCTTAATGTTTGAAATGTGTGAAATTTTGGAACTTGCTGGACAGGGTGATTTAATTTTTAGCTACAT
AATTTTAAGAATTAGTATTTTCAGTGGTGTGCATATTTTGGTTCTTAAATTTTGCTTCTTAAACTAAAAAATC
CTGACCAATTTATTTGTTGTTTTCTGTGGGTTGCGACCCATGCAATCAAAAAGCAAAATTTTGATTGAGATTTT
TACAGCATAGGTTTTTTCATATAAAAAATATTCTGAATTTGTTAAGCACTGCCATAATATCATTATAATGTTTTGT
CTTTTAGTGCTTCCCTATACAATTGTTAATGCACAAATGATCTCTAATATATACTTACATACGTAAATCATAAA
GTTTGGTAATGCAGTTTATCGTTTTAAAAATAATCCACAAAGATGTTTTATCTCACATACTTACAACCAACAC
ACAGAGTGACCATGTGCAGCTTCTTTTTTGTAGATGCCACATCCGAAGACTCATCGCAGTGTGTTATATGACA
GGACAAAGCAAAAACAAACAAAAAGCAAGCCTGTGAATATAATTTAATTTGAAACTGCTCCTGGTATTATATATT
TGCTAGTTATCTAATGTTTTTAAAGAAAAATATACCTCATTTAGGTTTGAATTGGGCGTATTGTGTAAATTTCAA
TATTCAGAAATGCAAAGGGCTTGACTATTAAATGTTTGCCTTTGATGTTTATAAACATTACAACATATGTTGTTTTA
AGACATTTAAAAACGTGAAATTTGTTATCTTTGTAAATGACAATCATGTAGAAACCTGTCTTGGTTGACAATCT
CTTTGAAACATTTCCGAGTTAATTTCCCATAGGCTTCACCACCAAGAAAGTAAGAATTGCATCTTTACATAATGA
TCAAGGTATAATGGAAAAATATACCTATTCTTGAAGTAGTTTATTATAGTTTTCAAATTGATTTATACCATTATT
AACCTGATGTGGTCTGCTTAAAAAATGAATATATCAGTATTTAGAAATAAATTGCAAAGGTGGGAATATATACTT
AAATAATTTGTCTTAAGTAAATTAGCATTGGTAGTCTGAAATGGTGACAGATTACTTGTTAAAAATTGTGAAAAC
TCTGTTGTGTCCTCTCTTCTTACATTTGTCCCTGAGAGTACTCCACGATTACTAGGTTCTTGATTCCCTTATATG
GCAATCAGGCAGAGGCGTTCCCTAAGCATTAGAGAGTTCTGAAGCTTAAGATTTGTTTTGGTTGGATGAAGTCCT
TAGTACAGTTGAAAAACAGAGCATTAAGACTAATCAATTGTTTTGCCTCACCAGTCATTTTAAATAGTAGAATA
CTTATTTCTCAGTGCTTAAATTTCTTTTTCAACTGTGAGATTGAATAAACAGTCTCTATTTCTGTGGAAAAAAC
AACAGAAAAGAGATATTAAATACCATAAAATGTAACCTCTGCCTTTTTAAAGTTTTGCTGAAGAATGTGTCTGTGGT
TAGGATAGCACAAAGCATTAACTTTTGTTTTATAGTTATGCTTTTTAAATTCATTGTTTTTAAATTTAGACTTCT
TATTTCCACACTGGATTATGAGATACTTAACAATTTTCCACCTTATATTTCTTTTACACATTTTGCTGTTCTCT
TTTTGTTATTGTTATGCCACCATAACATTTTGTAAATGTTTTCTTTGTGAAACATTTGTTCAAGTTCTAATA
AAATTAATGTTTTCCCTTAACATGGCTCAATAACTTAAAAACGTTCAATTAATAAAATTTTAATACTTGTTTGA
CAAAAAAAAAAAAAA

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FIGURE 387

MPDDEGEELCWKKVDLGDMKNVDVLSFSHAPSFNFLNSCWSKPKEDKAVDTS DLEVAEDPMGLQGIDLITAAL
LFCLGDSPGGRGISDSRMADIYHIDVGTQTFSLPSAILATSTMVGEIASASACDHANPQLSNPSPFQTLGLDLVL
ECVARYQPKQRSMFTFVCGQLFRRKEFSSHFKNVHGD IHAGLNGWMEQRCPLAYYGCTYSQRRFCPSIQGAKI IH
DRHLRSFGVQPCVSTVLVEPARNCVLGLHNDHLSSLPFEVLQHIAGFLDGFSLCQLSCVSKLMRDVCGSLLQSRG
MVILQWGKRKYPEGNSSWQIKEKVWRFSTAFCSVNEWKFADILSMADHLKKCSYNVVEKREEA IPLPCMCVTREL
TKEGRSLRSVLKPVL

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FIGURE 388

GAGGCGCCGGCGGCCACGCCGCGGAAGGCGCGGGCCGAGCAGAGCCGGGCGTTGGAGCCCGCGCGCGCATGGAGG
CGTTGCCGGCAGCCCCCTGAGGGCAGCGGGGAGACAAGACCCGGCGACCTCGCGCATCCCTCGAGCCGCCACGCG
CTCTCGCCACCGGGCGGCGACGGGGCCGCGGAGCCGGCGCGGCCATGGCGACGGGGCGGCCAGCAGAAGGAGAACAC
GCTGCTTCACCTCTTCGCCGGCGGGTGTGGAGGCACAGTTGGTGCTATTTTCACTTGTCCACTAGAAGTCATTAA
GACACGGTTGCAGTCTTCAAGATTAGCTCTCCGGACAGTCTACTATCCTCAGGTTCACTCTGGGGACCATTAGTGG
AGCTGGAATGGTGAGACCAACATCCGTGACACCTGGACTCTTTCAGGTTCTGAAGTCGATCTTGGAGAAAGAGGG
ACCAAAGTCACTTTTTAGAGGCTTGGGTCCAAATTGGTTGGAGTTGCACCATCAAGGGCTGTATACTTTGCATG
TTACTCCAAAGCCAAAGAGCAATTTAATGGCATTTTCGTGCCTAACAGCAATATTGTGCATATTTTCTCAGCTGG
CTCTGCAGCTTTTATCACAAATTCCTTAATGAATCCTATATGGATGGTTAAAACCCGAATGCAGCTAGAACAGAA
AGTGAGGGGGCTCTAAGCAGATGAATACACTCCAGTGTGCTCGTTACGTTTACCAGACCGAAGGCATTTCGTGGCTT
CTATAGAGGATTAAGTGCCTCGTATGCTGGAATTTCCGAACTATAATCTGCTTTGCTATTTATGAAAGTTTAAA
GAAGTATCTGAAAGAAGCTCCATTAGCCTCTTCTGCAAATGGGACTGAGAAAAATCCACAAGTTTTTTTGGACT
TATGGCAGCTGCTGCTCTTTCTAAGGGCTGTGCCTCCTGCATTGCTTATCCACACGAAGTCATAAGGACGAGGCT
CCGGGAAGAGGGCACCAAGTACAAGTCTTTTGTCCAGACGGCGCGCCTGGTGTTCCGGGAAGAAGGCTACCTTGC
CTTTTATAGAGGACTGTTTGCCAGCTTATCCGGCAGATCCCAAATACTGCCATTGTGTTGTCTACTTATGAGTT
AATTGTGTACCTGTTAGAAGACCGTACTCAGTAAACAGGCCGGAATTTGTGCTCTAGAAGAATAAACTGAAAAA
CTCTAGAGAATTTTTTTTCCCCATTGATGTTTAGAAAGTTTGAGACTGAAACAGGAAAGGCCATAAAATATCTGG
TTCATATCACCTGTTGGACATTTCTTTTGGATTCTGCTTTCTGGAAGGTTTAAATTCATTAAACGTTAATAGTT
AATTATAACTTTTTTTTAACTTAAGAGGATTCAGGGTTAAGCACCAACTAAATTAAATCATGCTATTTAATTTAA
GTATAACC

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FIGURE 389

MATGGQKENTLLHLFAGGCGGTVGAIFTCPLEVIKTRLQSSRLALRTVYYPQVHLGTISGAGMVRPTSVTPGLF
QVLKSILEKEGPKSLFRGLGPNLVGVAPSRVYFACYSKAKEQFNGIFVPNSNIVHIFSAGSAAFITNSLMNPIW
MVKTRMQLEQKVRGSKQMNTLQCARYVYQTEGIRGFYRGLTASYAGISETIICFAIYESLKKYLKEAPLASSANG
TEKNSTSFFGLMAAAALS KGCASCIAYPHEVIRTRLREEGTKYKSFVQTARLVFREEGYLAFYRGLFAQLIRQIP
NTAIVLSTYELIVYLLDRTQ

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FIGURE 390

GACCAGGCCTCCTGATTGTCCTTTTGTGGGCTATTCTATACTCTCTCTCATAAGTCCCACAAAAGTGGGTAGAG
CACACGTTTCCTATACACTGGCTTTTTATTCTTAATTGAAAAGTAGTTTACTTTTTTAAGAACTGGTTTTTACTT
TATTCTTATCATCCTTTTCCAAGAGCTTTCACAGGCATAACTAATTTGACATCAGCAGAACTGATTTTCATCATCA
GGCCTAGGTTACTCACTACTGCTTCTCTTTGAAGTTGTGAGGCTGGGAGATGCACAACACCGACGAGGGAGATGT
GGTCACAGAGGCATGACAAAGTTCAAGCTTCAGAAAGTAGCCAACTAATCAATATTCTCAGCTCAAGACAAAA
TTGATCAGTGTAACAGATATAGTAAGTTTCGTCCAGGTCACAGGAGTCAGTTTCACTCTCACATCTTGTCAATTC
AACGACGTGGGCTCCTCACTAAACAATGTTTGGCTTAGAAGTAGATTCTATAGAGTTTTATTATGGACAATGTCC
AGTGTCAATGCCAATACTCTCCAAAATGATTTGAGCCATGAAGTACAGGGAGGAGAAGAGTATTTGTTGAACACT
TGTAATGAGTGCTTTTCTTCCATAATAGCACACATCTAGGTATTTTGCCCAATTTGCAGATGAGGCAAAAATTT
GGAGTATGAATTTCAAAGAAGTCGAACAGGCTAGATGAGTGCAGAGATGGAGAGTTAATCAAAGGGAGTCTGCTG
TAAACTCCTCCACATGTGCAAATTGGCCAATATGAAAGCAATGAATATTTGACAAATTGAAGTTTTCTGCTAC
TTCACCAATTTTCTCAAGGGCTTTGATTCAGTTTTCTATATCAGAAGGTAAAAGGCGAGAGGCTTCCATGGCTGC
CTGTCAACAGGTTTGTGGAGAGAAGGGCTGGGAACCCTGGGCAAGCAGCACTTTCAGCAATAAACAGTATCCT
CAGGGGCCCCACAGAGGGAAGATGGTTTCAGTGCCAAAGGCTTGAGTCCCCTTAATTTTTTTCATTCCACTTCACTC
ATCACCTGTCTCCTTTCTATGCTAGCAAAAGAACAATTATTCATAGATGGTAAAATTATTTATAGAGCCGGTGTA
ATTAAAAAGAAAAAAAAGAAAAGAAACACCTGATGCAAAATTCCTCCATTGCAAGGTGAGAAGATGAAAATCCA
AGTAGCTAAGTGGCTTTCTCAAGCTCACAAATCTATAATTCAGTCTCTTACATCTATCAGAAACATGTTCCGCCT
TATCCTGGTCTCTGAAAACAAAACATAGTGTCTCCAAAGCATTAATGGTTTTTGTGTTTTGATATAAAAAAGGA
CATGTCCCCAGAAATTATCCCCTGCATAAACTTTAGAAAATGATGCTTGAAGGTCACTAGAAGTTGATTACTT
AATGACAGCCAGTAAGGTACAAACATACACAGAGCCAAATTCCTGGGAGATGAAAAATGAAAAAAAATAACAGA
TTCAACCAGTGCTTCTGTCAACACACTACTCTGAGATTTTTCTTATTTTAATCTTATGGTCTAGAGTAGTATTA
G

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FIGURE 391

ACTCATTATACCAGGAAACAGACAAGAGAACAAGAGGCTGCCGAAGACAAAACCTTCTCTGCAAGCACCTGTGCA
CAGCAATGTGCGTGCGGCATCTGTGAGAAGAAGAGAATCTGTGAAGTTTGAGCAAGCGGCCTTCCCAAGATGTACC
GAATATCTCAACTGATGTCAACACCAGTAGCAAGTTCTTCCAGGTTGGAAAGAGAAATATGCTGGAGAGCTGTCTC
CCACGTGCATTTTCCCAAGTTTCACCTGTGATTCCCTGGATGGTTACCATTCTTTTGAATGCGGCTCCATAGATC
CCCTGACAGGCTCCCACTATACCTGTGCGCCGAAGTCCCAGACTCCTCACCAATGGCTACTATATTGGACTGAAG
ACAGCTTCTGTGCGACAAAGATGGCAACATAACTCTGAACCCATCCCAGACCAGCGTTATGTATAAGGAGAACT
TAGTTAGTACCTCCAAATCTTGGCTGCATGGAAGTATCTTTGGTGACATCAACTCTTCTCCAAGTGAAGACAAC
GGTTGAAGGGGACCAGGAGGTTGGACACAGACCATTGCAATGGAAATGCAGATGATTTAGACTGTTCTTCTCTGA
CTGATGACTGGGAGTCAGGGAAGATGAATGCAGAGTCTGTGATCACCTCCTCTTCCAGCCACATCATATCTCAGC
CTCCTGGAGGAAACTCCCATAGCTTGTCTCTTCAGTCCCAGTTGACAGCTTCTGAACGTTTCCAAGAGAATAGTT
CGGATCATTGAGAAACCAGGTTGTTGCAAGAGGTCCTCTTTCAGGCAATCCTGCTTGCTGTGTGCTTAATCACTT
CTGATGTGCAAGATGGTTTATGGGAGAAATATTAGCCAGTGTCTTCACATGCTCATTGATGATAACTGTAGCTT
ATGTGAAATCATTGTTTCTCAGCCTTGCCAGCTATTTCAAACCAGCTGCCTGTGCTCGGTTTGTCAAAATTTGAC
AACCATTTAGGAATGCCTTCGATGAATGTCTCCATCTGAATATCTGGAAATTGTCCAACCTGCAGTCTACTTGG
AATCAAGTGTTTATTGGAAGGGAGTAAGCGAGTAATGGAGAAAAAGCCATTTTAGTTTGACTATGTGATTTTAA
AATGATCTCAGTTTTTCCATCAAATTATAATATGCTCATGAAAATAATATTAATTTGCCTTCCCTTTGCAAACA
CCGGCAGTTGAAAGGAAAAGGACGGGGAATGTGATGAAAAGAGACCGCCTGGAATAAATGTCCCCCTATGATTC
TTTAAGGCAGTGGTTCTCGAGCTTGAATTTTCATTAGGAAATTCTGTGAGGAGCTTGTAACCAGATTTCTGGGTC
TGCCACATGCACCTATCTCTTGCTGAATTGCTTTAATAGAATAATGAGAGCAAGTTTGCTAATAATACCAACC
TGACAACCTGAATAACAATAAATGCAATTTGTACATAAAATATAATGCTGCAAAAAGTTTGTCATTACCTCAGTG
GAGTGACTTGATATTAGGTGGTAACCGTAGATGATGGTTAATATGAAAATGGACAGGAAAAGAAGCATTTTCTGAA
AGTTATATTCTTTGAACCACGTTCTAAACCAAGTTTTTAATCTTCTTGGGGCTCGTAATTACCTTTCACTTTAA
TGTCACCTTAAAGATATAACACAGAAAAATGCCTTGAGGGCAAAATATAGGCAAAACACCAATGCGCTTTCAAATG
CATGAAAATGGTGCAAGTTGTACCCTTGAGCCTTGACTCAAGGGCTGTAGATGTTCCCTTTCCACCCCCACACTT
GGTGCGTGTTACAAAAGCAAATATGGCCTGTAATTCAAATTTGTTCTATGTGATACTCTCTGAGTAAAACTCAT
ACATGCAGAAAATTGTCTTTGCTCGAAATGATAATGCCAAAATATAACTTTATATATAATTTGCATTTAGTACAT
TTTTGGTTAAAAAATAAACTAATAAATAAGTGAAGTCATCAGC

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FIGURE 392

MYRISQLMSTPVAS3SRLEREYAGELSPTCIFPSFTCDSLDGYHSFECGSIDPLTGSHYTCRRSPRLLTNGYYIW
TEDSFLCDKDGNIITLNPSTSVMYKENLVSTSKSWLHGSIFGDINSSPSEDNWLKGTRRLDTHCNGNADDLDCS
SLTDDWESGKMNAESVITSSSSHIISQPPGGNSHSLSLQSQLTASERFQENS SDHSETRLLQEVFFQAILLAVCL
ITSACARWFMGEILASVFTCSLMITVAYVKSLFSLASYFKTTACARFVKI

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FIGURE 393

CGCTAAGCGTCCCAGCCGCATCCCTCCCGCAGCGACGGCGGCCCCGGGACCCGCGGGCTGTGAACC**ATGA**ACACCC
GCAATAGAGTGGTGAAC TCCGGGCTCGGGCGCTCCCTGCCTCCCGCCCCGACCCGGGATCCCCAGGACCCCTTCTG
GGCGGCAAGGGGAGCTGAGCCCCGTGGAAGACCAGAGAGAGGGTTTGGAGGCAGCCCCCTAAGGGCCCTTCGCGGG
AGAGCGTCGTGCACGCGGGCCAGAGGCGCACAAGTGCATACACCTTGATAGCACCAAATATAAACCGGAGAAATG
AGATACAAAGAATTGCGGAGCAGGAGCTGGCCAACCTGGAGAAGTGGAAGGAGCAGAACAGAGCTAAACCGGTTT
ACCTGGTGCCAGACGGCTAGGTGGAAGCCAGTCAGAACTGAAGTCAGACAGAAACAACAACCTCCAGCTGATGC
AATCTAAATACAAGCAAAAGCTAAAAAGAGAAGAA TCTGTAAGAATCAAGAAGGAAGCTGAAGAAGCTGAACTCC
AAAAATGAAGGCAATTCAGAGAGAGAAGAGCAATAAACTGGAGGAGAAAAAAGACTTCAAGAAAACCTTAGAA
GAGAAGCATTTCAGAGAGCATCAGCAATACAAAACCGCTGAGTTCTTGAGCAAACCTGAACACAGAATCGCCAGACA
GAAGTGCCCTGTCAAAGTGCTGTTTGTGGCCCAAA TCCTCAACATGGGCCAGAAGCTGGGCTTACAGAGATTCTC
TAAAGGCAGAAGAAAACAGAAAATTGCAAAAGATGAAGGATGAACAACATCAAAAGAGTGAATTACTGGAACCTGA
AACGGCAGCAGCAAGAGCAAGAAAGAGCCAAAATCCACCAGACTGAACACAGGAGGGTAAATAATGCTTTTCTGG
ACCGACTCCAAGGCAAAAGTCAACCAGGTGGCCTCGAGCAATCTGGAGGCTGTTGGAATATGAATAGCGGTAACA
GCTGGGGTATAT**TGAG**AAAAATATTGACTCCTATCTGGCCTTCATCAACTGACCTCGAAAAGCCTCATGAGATGCTT
TTTCTTAATGTGATTTTGTTCAGCCTCACTGTTTTTACCTTAATTTCAACTGCCCACACACTTGACCGTGCAGTC
AGGAGTGACTGGCTTCTCCTTGTCTCATTTATGCATGTTTGGAGGAGCTGATTCCTGAACCTCATATTTAAACTC
TACTGCCAGGGAAATGCTACATTATTTTTCTAATTGGAAGTATAATTAGAGTGATGTTGGTAGGGTAGAAAAAGA
GGGAGTCACTTGATGCTTTCAGGTTAATCAGAGCTATGGGTGCTACAGGCTTGCTTTCTAAGTGACATATTCTT
ATCTAATTCTCAGATCAGGTTTTGAAAGCTTTGGGGGTCTTTTATAGATTTTAATCCCTACTTTCTTTATGGTACA
AATATGTACAAAAGAAAAGGTCTTATATTCTTTTACACAAATTTATAAATAAATTTTGAACCTCTTCTGTAAAA
AAAAAAA

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FIGURE 394

MNTRNRVVNSGLGASPARPTRDPQDPSGRQGELSPVEDQREGLEAAPKGPSRESVVHAGQRRTSAYTLIAPNIN
RRNEIQRIAEQELANLEKWKEQNRAPVHLVPRRLGGSQSETEVRQKQQLQLMQSKYKQKLKREESVRIKKEAEE
AELQKMKAIQREKSNKLEEKRLQENLRREAFREHQYKTAEFLSKLNTESPDRSACQSAVCGPQSSTWARSWAY
RDSLKAEENRKLQKMKDEQHQSLELLELKRQQQEQUERAKIHQTEHRRVNNAFLDRLQGKSQPGGLEQSGGCWNMN
SGNSWGI

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FIGURE 395A

GAGCCGGTGGCGCAGGTGTCGGGGTCTCGAGCGCCAGCCTGGGAGCATGATTGTGGACAAGCTGCTGGACGAC
AGCCGCGGCGGAGAGGGGCTGCGGGACGCGGCGGGCGGCTGCGGCCTCATGACCAGCCCGCTCAACCTGAGCTAC
TTCTACGGCGCGTCGCCGCCCCGCCGCCCGGGCGCCTGCGACGCCAGCTGCTCGGTGTCTCTGCGGCGCCGTGGAGTCC
CCCGGCTCGCCCGGCTCCGACTCCTCCGACTTCTCCTCTGCCTCGTCTGGTGTCTCTGCGGCGCCGTGGAGTCC
CGGTGAGAGGCGGCGCCCCGCGCCGAGCGCCAGCCAGTTGAGCCCCATATGGGGGTGGCAGGCAGCAGAGAGGC
CCCTTTCAAGGTGTTCTGGGTAAAGAACTCAGTGAAGGAAGTCTGTGACATCCGAAGTCATAAACAGAAGGCT
TCTGGCCAAGCTGTGGATGATTTTAAGACACAAGGTGTGAACATAGAACAGTTCAGAGAATTGAAGAACACAGTA
TCATACAGTGGGAAAAGGAAAGGGCCCGATTCTGTTGTCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGCAT
TCCCAATTTTTGACACCACCTCAAACACCAACGCCCGGGGAGAGCATGGAAGATGTTTCTCATCTCAATGAACCCAAA
CAGGAGAGCAGTGTCTGATCTGCTTCAGAACATTATCAACATTAAGAATGAATGCAGCCCCGTTTCCCTGAACACA
GTTCAAGTTAGCTGGCTGAACCCCGTGGTGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGA
GGGCAGGTCTTTTCTCCACCTCAGAAATGCCAACCATTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGGCT
TCCCTGTACCAGTATTCTCCACAGAACAGCATGTAGAGCAGCAGCCACACTACACCCACAAACCAACTCTGGAA
TACAGTCTTTTCCCATACCTCCCCAGTCCCCCGCTTATGAACCAACCTCTTTGATGGTCCAGAATCACAGTTT
TGCCCCAAACCAAGCTTAGTTTCCCTTCTTGGTGAICAAAGGGAATCTGAGAATATTGCTAATCCCATGCAGACT
TCCTCCAGTGTTCAGCAGCAAAATGATGCTCACTTGACAGCTTCAGCATGATGCCAGCAGCGCCTGTGAGGCC
ATGGTGGGGCACGAGATGGCCTCTGACTCTTCAAACACTTCACTGCCATTCTCAAACATGGGAAATCCAATGAAC
ACCACACAGTTAGGGAATCACTTTTTTCACTGGCAGGTGGAGCAGGAAGAAAGCAAATTTGGCAAATATTTCCCAA
GACCAGTTTCTTTCAAAGGATGCAGATGGTGACACGTTCTTTCATATTGCTGTTGCCCCAAGGAGAAAGGGCACTT
TCCTATGTTCTTGCAAGAAAGATGAATGCACCTTACATGCTGGATATTAAGAGCACAAATGGACAGAGTGCCTTT
CAGGTGGCAGTGGCTGCCAATCAGCATCTCATTGTGAGGATCTGGTGAACATCGGGGCACAGGTGAACACCACA
GACTGCTGGGGAAGAACACCTCTGCATGTGTGTGCTGAGAAGGGCCACTCCCAGGTGCTTCAGGCGATTGAGAAG
GGAGCAGTGGGAAGTAATCAGTTTGTGGATCTTGAGGCAACTAATATGATGGCCTGACTCCCTTCACTGTGCA
GTCATAGCCACAATGCTGTGGTCCATGAACTCCAGAGAAATCAACAGCCTCATTACCTGAAGTTCAGGAGCTT
TACTGAAGAATAAGAGTCTGGTTGATACCATTAAAGTGCTAATTCAAATGGGAGCAGCGGTGGAAGCGAAGGAT
CGCAAAAGTGGCCGCACAGCCCTGCATTTGGCAGCTGAAGAAGCAAATCTGGAACCTCATTGCGCTCTTTTGGAG
CTGCCCAGTTGCCTGTCTTTTGTGAATGCAAAGGCTTACAATGGCAACACTGCCCTCCATGTTGCTGCCAGCTTG
CAGTATCGGTTGACACAATTAGATGCTGTCCGCTGTTGATGAGGAAGGGAGCAGACCCAAGTACTCGGAACCTG
GAGAACGAACAGCCAGTGCATTTGGTTCCCGATGGCCCTGTGGGAGAACAGATCCGACGTATCTGAAGGGAAAG
TCCATTACAGCAGAGAGCTCCACCGTATTAGCTCCATTAGCTTGGAGCCTGGCTAGCAACACTCACTGTCAGTTAG
GCAGTCTGATGTATCTGTACATAGACCATTGGCTTATATTGGCAAATGTAAGTTGTTTCTATGAAACAAACAT
ATTTAGTTCATATTATATAGTGGGTTATATTAAGAAAGAAAGAAAGAAATATCTAATTTCTCTTGGCAGATTTG
CATATTTATACCCAGGTATCTGGGATCTAGACATCTGAATTTGATCTCAATGGTAACATTGCCTTCAATTAACA
GTAGCTTTTGAGTAGGAAAGGACTTTGATTTGTGGCACAAACATTATTAATATAGCTATTGACAGTTTCAAAGC
AGGTAAATTGTAAATGTTTCTTTAAGAAAAAGCATGTGAAAGGAAAAAGGTAAATACAGCATTGAGGCTTCATTT
GGCCTTAGTCCCTGGGAGTTACTGGCGTTGGACAGGCTTCAGTCACTGGACTAGATGAAAGGTGTCCATGGTTAG
AATTTGATCTTTGCAAACCTGTATATAATTGTTATTTTGTCTTAAAAATATTGTACATACTTGGTTGTTAACAT
GGTCATATTTGAAATGTATAAGTCCATAAAATAGAAAAGAACAAAGTGAATTGTTGCTATTTAAAAAAATTTTACA
ATTCCTTACTAAGGAGTTTTTATTGTGTAATCACTAAGTCTTTGTAGATAAAGCAGATGGGGAGTTACGGAGTTGT
TCCTTTACTGGCTGAAAGATATATTCGAATTGTAAAGATGCTTTTCTCATGCATTGAAATTATACATTATTTGT
AGGGAATTGCATGCTTTTTTTTTTTTTTCTCCCGAGACAGGCTTGTCTCTGGCGCCAGGCTGGAGTACAGTGG
CATGATCTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCTACCTGAGCCTTCTGAGTAACCTGGGAC
TACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTATTTTTTGTACAGGCAGGATCTTGCCACCTTGCCAGGCTG
GTCTTGAACCTCTGAGCTCATGCCATCTGCCCTGCTTAGTCTCCCAAATGCTGGGATTACAGGAGTGAGCCACC
ATGCCCGGCTGGCAGTTGCATGGAAGAGAACACCTCTTTATGGCTTACCCTCTAGAATTTCTAATTTATGTGTTT
TGTTGAAATTTTTGTTTTTTTACCTTTATTGAAACAACAAAAGTCAGTATTGAAACATATCTTCTGTTTTCTG
TTGTCAAATGATGATAATGTGCCATGATGTTTTATATATATCATTAGAAAAGTTTTATTTTTTAATAACATTC
TATTAACATTATTTTGTCTGCGCTGGCATGCCTGAGGAATGTATTTGGCTTTGATTACACACTAAGTTTTTGTG

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FIGURE 395B

ATAAATTGACTCATTAAAAACCTTTTTTTTTTAAAAAAAAAAAAAAAAAGAAAATCTCATTAGTGAAC TTATCTTTG
CAGCTGAGTACTTAAATTCTTTTTAAAAAGATACCCTTTGGATTGATCACATTGTTTGACCCAGTATGTCTTGTA
GACACGTTAGTTATAATCACCTTGTATCTCTAAATATGGTGTGATATGAACCAGTCCATTACATTGGAAAAACT
GATGGTTTTAAATAAACTAATTCATAAAAAAAAAAAAAAAAAA

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FIGURE 396

MIVDKLLDDSRGGEGLRDAAGGCGLMTSPLNLSYFYGASPPAAAPGACDASCSVLGPSAPGSPGSDSSDFSSASS
VSSCGAVESRSRGGARAERQPVEPHMGVGRQQRGPFQGV RVKNSVKELLLHIRSHKQKASGQAVDDFKTQGVNIE
QFRELKNTVSYSGKRKGPDSLSDGPACKRPALLHSQFLTPPQTPTPGESMEDVHLNEPKQESSADLLQNIINIKN
ECSPVSLNTVQVSWLNPVVVPQSSPAEQCQDFHGGQVFSPQKQPFQVRGSQQMIDQASLYQYSPQNQHVEQQP
HYTHKPTLEYSPPFIPPQSPAYEPNLFDPESQFCPNQSLVSLGDPRESENIANPMQTSSSVQQQND AHLHSFS
MMPSSACEAMVGHEMASDSSNTSLPFSNMGNPMNTTQLGKSLFQWQVEQEESKLANISQDQFLSKDADGDTFLHI
AVAQGRRALSYVLARKMNALHMLDIKEHNGQSAFQVAVAAHQHLIVQDLVNIGAQVNTTDCWGRTPLHVCAEKGH
SQVLQAIQKGAVGSNQFVDLEATNYDGLTPLHCAVIAHNAVVELQRNQPHSPEVQELLLKNKSLVDTIKCLIQ
MGAAVEAKDRKSGRTALHLAAEEANLELIRLFLELPSCLSFVNAYNGNTALHVAASLQYRLTQLDAVRLLMRK
GADPSTRNLENEQPVHLVPDGPVGEQIRRIKGS IQQRAPPY

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FIGURE 397

TTTTTTCTAGAAAACACAGCTTCTGTAATCTTTCTCTTTCTCTTCTGGAAATTAGAACAAATTTTTTGA
AGGAAGAAATATTGTCAACATTATAACCTTGAGTGAAGCATTATTACTTTAGTAAATATCTCGCTAAGATACTGA
ACATCAAAATTAAAAATCAAACAACCTTCTAAATGTATTTATTTGCATTTTATGCTGTGTACTTTTGAATATAGT
GATTTTATTATTTTGTAAATTTTCATGAAGTGTGTACTTTGGTTTCACACACTCAACACCATACCAATAA
TGAAATTATTAGTAATTTCAAGTTACTAATTGATTGGCTGTCATGTGCTATAAATGATAATGCCATCTGTGAACC
AGCAAGGCATAGACAGAATTGTTTGGAAAAAGCCTGATTAGTACCAGTTGCATTAATTCTAACTCCCCTAATTT
AGGACCTTTTTTTTCTTA

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FIGURE 398A

TGAATTCGTGAGAGACTTGAGGGAGGCGCTGCGACTGACAAGCGGCTCTGCCCGGGACCTTCTCGCTTTTCATCTA
GCGCTGCACTCAATGGAGGGGCGGGCACCAGTGTCTTAATGCTGTCTTAACTAGTGTAGGAAAACGGCTCAACC
CACCCTGCCGAAATGAAGTATAAGAATCTTATGGCAAGGGCCTTATATGACAATGTCCCAGAGTGTGCCGAGGA
ACTGGCCTTTTCGCAAGGGAGACATCCTGACCGTCA TAGAGCAGAACACAGGGGGACTGGAAGGATGGTGGCTGTG
CTCGTTACACGGTCGGCAAGGCATTGTCCCAGGCAACCGGGTGAAGCTTCTGATTGGTCCCATGCAGGAGACTGC
CTCCAGTCACGAGCAGCCTGCCTCTGGACTGATGCAGCAGACCTTTGGCCAACAGAAGCTCTATCAAGTGCCAAA
CCCACAGGCTGCTCCCCGAGACACCATCTACCAAGTGCCACCTTCTTACCAAAAATCAGGGAATTTACCAAGTCCC
CACTGGCCACGGCACCACAAGAACAAGAGGTATATCAGGTGCCACCATCAGTGCAGAGAAGCATTGGGGGAACCAG
TGGGCCCCACGTGGGTAAAAAGGTGATAACCCCCGTGAGGACAGGCCATGGCTACGTATACGAGTACCCATCCAG
ATACCAAAAGGATGTCTATGATATCCCTCCTTCTCATACCACTCAAGGGGTATACGACATCCCTCCCTCATCAGC
AAAAGGCCCTGTGTTTTTCAGTTCCAGTGGGAGAGATAAAACCTCAAGGGGTGTATGACATCCCGCCTACAAAAGG
GGTATATGCCATTCCGCCCTCTGCTTGCCGGGATGAAGCAGGGCTTAGGGA AAAAGACTATGACTTCCCCCTCC
CATGAGACAAGCTGGAAGGCCGGACCTCAGACCGGAGGGGTTTTATGACATTCTCCAACCTGCACCAAGCCAGC
AGGGAAGGACCTTCATGTAAAATACAACCTGTGACATTCCAGGAGCTGCAGAACCGGTGGCTCGAAGGCACCAGAG
CCTGTCCCCGAATCACCCACCCCGCAACTCGGACAGTCAGTGGGCTCTCAGAACGACGCATATGATGTCCCCCG
AGGCGTTCAGTTTCTTGAGCCACCAGCAGAAACCAGTGAGAAAGCAAACCCCCAGGAAAGGGATGGTGTATGA
TGTCCCTCTGCATAACCCGCCAGATGCTAAAGGCTCTCGGACTTGGTGGATGGGATCAACCGATTGTCTTTCTC
CAGTACAGGCAGCACCCGGAGTAACATGTCCACGTCTTCCACCTCTCCAAGGAGTCTCACTGTGAGCCTCCCC
AGCTCAGGACAAAAGGCTCTTCTGGATCCAGACACAGCTATTGAGAGACTTCAGCGGCTCCAGCAGGCCCTTGA
GATGGGTGTCTCCAGCCTAATGGCACTGGTCACTACCGACTGGCGGTGTTACGGATATATGGAAAGACACATCAA
TGAAATACGCACAGCAGTGGACAAGGTGGAGCTGTTCCTGAAGGAGTACCTCCACTTTGTCAAGGGAGCTGTTGC
AAATGCTGCCTGCCTCCCGGAACCTCATCTCCACAACAAGATGAAGCGGGAGCTGCAACGAGTCAAGACTCCCA
CCAGATCCTGAGTCAAACCCAGCCATGACTTAAATGAGTGCAGCTGGTCCCTGAATATCTTGGCCATCAACAAGCC
CCAGAACAAGTGTGACGATCTGGACCGGTTTGTGATGGTGGCAAAGACGGTGCCCGATGACGCCAAGCAGCTCAC
CACAACCATCAACACCAACGCAGAGGCCCTCTTACAGACCGGCCCTGGCAGCTTGCATCTGAAGAAATGGGCCGGA
GAGCATCATGAACCTCAACGGAGTACCCACACGGTGGCTCCAGGGACAGCTGCTGCATCCTGGTGACCACAAGGC
CCAGGCCCCACAACAAGGCACTGCCCCCAGGCCTGAGCAAGGAGCAGGCCCTGACTGTAGCAGCAGTGATGGTTC
TGAGAGGAGCTGGATGGATGACTACGATTACGTCCACCTACAGGGTAAGGAGGAGTTTGAGAGGCAACAGAAAGA
GCTATTGGAAAAAGAGAATATCATGAAACAGAACAAGATGCAGCTGGAACATCATCAGCTGAGCCAGTTCAGCT
GTTGGAACAAGAGATTACAAAAGCCCGTGGAGAATGACATCTCGAAGTGGAAGCCCTCTCAGAGCCTACCCACCAC
AAACAGTGGCGTGAGTGCTCAGGATCGGCAGTTGCTGTGCTTCTACTATGACCAATGTGAGACCCATTTCATTTT
CCTTCTCAACGCCATTGACGCACTCTTCAGTTGTGTGAGCTCAGCCAGCCCCCGCAATCTTCGTGGCACACAG
CAAGTTTGTATCCTCAGTGCACACAACTGGTGTTCATTGGAGACAGCTGACACGGCAGGTGACTGCCAGGA
CATTGCAACAAAGTCATGAACTCCAGCAACCAGCTCTGCGAGCAGCTCAAGACTATAGTCATGGCAACCAAGAT
GGCCGCCCTCCATTACCCACGACCCAGGCCCTGCAGGAAATGGTGCACCAAGTGACAGACCTTTCTAGAAATGC
CCAGCTGTTCAAGCGCTCTTTGCTGGAGATGGCAACGTTCTGAGAAGAAAAAAGAGGAAGGGGACTGCGTTAA
CGGTTACTAAGGAAAACCTGGAATACTGTCTGGTTTTTGTAATGTTATCTATTTTTGTAGATAATTTTATATAA
AAATGAAATATTTTAACATTTTATGGGTCAGACAACTTTCAGAAATTCAGGGAGCTGGAGAGGGAAATCTTTTTT
TCCCCCTGAGTGTCTTATGTATACAGAAAGTATCTGAGACATAAACTGTACAGAAAACCTGTCCACGTCCTT
TTGTATGCCCATGTATTCATGTTTTTGTGTTGTAGATGTTTGTCTGATGCATTTTATTA AAAAAAACCATGAAT
TACGAAGCACCTTAGTAAGCACCTTCTAATGCTGCATTTTTTTTGTGTTGTTTAAAAACATCCAGCTGGTTATAA
TATTGTTCTCCACGTCCTTGTGATGATTCTGAGCCTGGCACTGGGAATCTGGGAAGCATAGTTTATTTGCAAGTG
TTCACCTTCAAATCATGAGGCATAGCATGACTTATCTTGTGTTTGGAAAACCTTTTTTCAAACCTGACCATCTTAA
ACACATGATGGCCAAGTGCCACAAAGCCCTCTTGCGGAGACATTTACGAATATATATGTGGATCCAAGTCTCGAT
AGTTAGGCGTTGGAGGGAAGAGAGACCAGAGAGTTTAGAGGCCAGGACCACAGTTAGGATTGGGTTGTTTCAATA
CTGAGAGACAGCTACAATAAAAGGAGAGCAATTGCCTCCCTGGGGCTGTTCAATCTTCTGCATTTGTGAGTGGTT
CAGTCATGAGGTTTTTCCAAAAGATGTTTTTAGAGTTGTA AAAACCATATTTGCAGCAAAGATTTACAAAGGCGTA
TCAGACTATGATTGTTACCAAAAATAGGGGAATGGTTGATCCGCCAGTTGCAAGTAGAGGCCTTTCTGACTCTT

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FIGURE 398B

AATATTCACTTTGGTGCTACTACCCCCATTACCTGAGGAACTGGCCAGGTCCTTGATCATGGAACTATAGAGCTA
CCAGACATATCCTGCTCTCTAAGGGAATTTATTGCTATCTTGACCTTCTTTAAAACTCAAAAAACATATGCAGA
CCTGACACTCAAGAGTGGCTAGCTACACAGAGTCCATCTAATTTTGGCAACTTCCCCCCCCGAATTC

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FIGURE 399

MKYKNLMARALYDNVPECAEELAFRKGDI LTVIEQNTGGLEGWWLCSLHGRQGIVPGNRVKLLIGPMQETASSHE
QPASGLMQQTFGQQKLYQVPNPQAAPRDTIYQVPPSYQNQGIYQVPTGHGTQEQEVYQVPPSVQRSIGGTSGPHV
GKKVITPVRTGHGYVYEYPSRYQKDVIDIPPSHTTQGVYDIPPSSAKGPVFSVPVGEIKPQGVYDIPPTKGVIYAI
PPSACRDEAGLREKDYDFPPPMRQAGRPDLRPEGVYDIPPTCTKPAGKDLHVKNCDIPGAAEPVARRHQSLSPN
HPPPQLGQSVGSQNDAYDVPRGVQFLEPPAETSEKANPQERDGVYDVPLHNPPDAKGSRDLDGINRLSFSSTGS
TRSNMSTSSTSSKESLSASPAQDKRLFLDPDTAIERLQRLQQALEMGVSSLMALVTTDWRCYGYMERHINEIRT
AVDKVELFLKEYLHFVKGAVANAACPELILHNKMKRELQRVEDSHQILSQTSHDLNECSWSLNILAINKPQNK
DDLDRFVMVAKTVPDDAKQLTTTINTNAEALFRPGPSLHLKNGPESIMNSTEYPHGGSQGQLLHPGDHKAQAHN
KALPPGLSKEQAPDCSSSDGSESWMDDYDYVHLQGKEEFERQQKELLEKENIMKQNKMQLEHHQLSQFQLEQE
ITKPVENDISKWKPSQSLPTTNSGVSAQDRQLLCFYDQCETHFISLLNAIDALFSCVSSAQPPRIFVAHSKFVI
LSAHKLVFIGDTLTRQVTAQDIRNKVMNSSNQLCEQLKTIVMATKMAALHYPSTTALQEMVHQVTDLSRNAQLFK
RSLLEMATF

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FIGURE 400

GGCACGAGGTGATTTTCCTACTCCACTGTTACTGGANCCACCAAGGCAGGAAGTGTGTCTCTTTACCACTACAGT
TCCTGTATCTTTTAGGTGCGTAGTATTTCTTGGTGAGTCAGTCAGTCTCCAGACTCAGTCATTTTTCTCTACATT
ACACATTCTTTCACATTCTTCTCCCACCAGTCTTCCTAGACTTGTTTCATTCTTCCCATCTTGTCTCTATGTAT
CTCTTCCCACCATTTCATTTTCCAGATAGCATCTAGACTGTTGTGTTAAAAAGCAAACTCCTTTCACACCACATT
CCATTAAATGCCTTCCCCTGGCCTTTGAACACCAAACAGGCCTTTAAGGCTATGTCATCTCCTACCATTGATC
TCAGACCTAGCTGCAGTTGCACAATAACAACCCCTGGCTCAAGTCTTCTGCACACATTGTTCCCTCACAGGCAGGA
ACCCTATGGTGACTGATCAATAATTAAACCTTGCCCTGGGCCAGGCACAGTGGCTTATACCTATAATCCTAGCAC
TTTGGGAGGCCAAGGTGGATCAGTTGAGCCCAGGAGTTACAGACCAGTCTGGGCATCATAGAGAGACCTTGCCCTC
TACTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 401

CTCGAAATTAACCCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGGCCGCTCTAGAACTAGTGGA
TCCCCCGGGCTGCAGGAATTCGGCACGAGGGCAAAATCCCAATATATAATTCTATACCTAGTAAAGATTGTAAAT
AACTAAAACAAAATGATAAGAGCTGTGAAGTGAATTTGTATTGCTTACAGAAATCATGAACTGAATTTTCTTCTC
TTTTTAAAGTGAGCATAAAGACTTAAGTGTATTGTTACCAGAGATATATTTAGATAGTATACATCATTTTGGCAG
GTAATCTTCTAGAACCTTTTCATGTACTGTTTCCATCAAGGGAGGGAAAGAAATAGAAAATATAATTTTATCTATA
TTTTCTTAAATATATCAATCTGTGCACACTCTTTCAGTTTTTTAATTACTCATGTAATATATGACTACATTTT
GCTTGTGTGCTTTTTTGAAAACCATCTTCAGTCCCAATATCCTCTGTAGAAGTAATAGTTTTAACTCTCCTAGATC
TTCTTTTAGAGTGTTTTTATGAGTGTTTAATGTAGGAATGTGTATATATTATCTACAGCCACAGGAAATGTATAG
TTACGATTTTTACATACGTGTATGTATATTATTGTACAACCTTGCTATTTCTACTTGGGAGTTTTTTATTTTGGTA
CATTACATTTACCTAATCTCTTGTGCACTGTCCAACAGTACTTTGCCTATAATAGACACTTAAGGAAGTTTTCC
TTCTTTTTATTCCTTTATAATTACCAACNATGCTGAAAGGAACATCATCCTACATGAGCCCTTTTTGTACATATA
AGGCTCT

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FIGURE 402A

GGCACGAGGCTGCGCTCGGGGGTCCGGCGTCCAGGCTCGGAGCGCGGCACGGAGACGGCGGCAGCGCTGGACTAG
GTGGCAGGCCCTGCATCATGGAACCTCTTCTAATGCAAGTGGTACITTTTGCCATACGCCITTTAAAGATACTGT
GTCAAGATAACCCCTTCGCACAACGTGTTCTGTTCTCCTGTGAGCATCTCCTCTGCCCTGGCCATGGTTCTCCTAG
GGGCAAAGGGGAAACACCGCAACCCAGATGGCCCAGGCACCTGTCTTTAAACACAGAGGAAGACATTTCATCGGGCTT
TCCAGTCGCTTCTCACTGAAGTGAACAAGGCTGGCACACAGTACCTGCTGAGAACGGCCAACAGGCTCTTTGGAG
AGAAAACCTTGTCAGTTCTCTCAACGTTTAAAGGAATCCTGTCTTCAATTCTACCATGCTGAGCTGAAGGAGCTTT
CCTTTATCAGAGCTGCAGAAGAGTCCAGGAAACACATCAACACCTGGGTCTCAAAAAAGACCGAAGGTAAAATTG
AAGAGTTGTTGCCGGGTAGCTCAATTGATGCAGAAACCAGGCTGGTTCTTGTCATGCCATCTACTTCAAAGGAA
AGTGAATGAACCGTTTGACGAAACATACACAAGGGAAATGCCCTTTAAAATAAACAGGAGGAGCAAAGGCCAG
TGCAGATGATGTATCAGGAGGCCACGTTTAAAGCTCGCCACGTGGGCGAGGTGCGCGCGCAGCTGCTGGAGCTGC
CCTACGCCAGGAAGGAGCTGAGCCTGCTGGTGTCTGCTGCTGACGACGGCGTGGAGCTCAGCACGGTGGAAAAA
GTCTCACTTTTGAGAACTCACAGCCTGGACCAAGCCAGACTGTATGAAGAGTACTGAGGTTGAAGTTCTCCTTC
CAAAATTTAACTACAAGAGGATTATGACATGGAATCTGTGCTTCGGCATTGTTGGAATTGTTGATGCCTTCCAAC
AGGGCAAGGCTGACTTGTGCGCAATGTCAGCGGAGAGAGACCTGTGTCTGTCCAAGTTCGTGCACAAGAGTTTTG
TGGAGGTGAATGAAGAAGGCACCGAGGCAGCGGACGCTGAGCTGCTTTGTAGTTGCAGAGTGCTGCATGGAAT
CTGGCCCCAGGTTCTGTGCTGACCACCCTTTCTTTTCTTCATCAGGCACAACAGAGCCAACAGCATTCTGTTCT
GTGGCAGGTTCTCATCGCCAATAAGGGTGCACCTACCGTGCACCTCGGCCATTTCCTCTTCCTGTGTCCCAGAT
CCCCACTACAGCTCCAAGAGGATGGGCCTAGAAAGCCAAGTGCAAAGATGAGGGCAGATTCTTTACCTGCTGCC
CTCATGATTTGCCAGCATGAATTCATGATGCTCCACACTCGCTTATGCTACTTAATCAGAATCTTGAGAAAATAG
ACCATAATGATTCCCTGTTGTATTAAAATTGCAGTCCAAATCCCATAGGATGGCAAGCAAAGTTCTTCTAGAATT
CCACATGCAATTCACCTCTGGCGACCCTGTGCTTTCCTGACACTGCGAATACATTCTTAACCCGCTGCCTCAGTG
GTAATAAATGGTGCTAGATATTGCTACTATTTTATAGATTTTCTGGTGCTTAGCCTTATAAAAAAGGTTGTAAAA
TGTACATTTATATTTTATCTTTTTTTTTTTTTTTTTTCTGAGACGCAGTCTGGCTCTCTGTGCGCCAGGCTGGAG
TGCAGTGGCTCGATCTCTGCTCACTGCAAGCTCCGCCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCTCCCGA
GTAGCTGGGACTACAGGCGCCCGCCACCACGCCCGGCTAATTTTTTGTATTTTATAGAGACGGGGTTTACCG
TGTTAGCCAGGATGGTGTGATCTCCTGACCTCGTGATCCACCCGCTCGGCCTCCCAAAGTGCTGGGATTACAG
GCTTGAGCCACCGCGCCCGGCTATATTTTATCTTTTATCTTTTCTTTGACATTTACCAATCACCAAGCATGCAC
CAAACACTGCTTTAGGCACTGGGGACACAAAGGGGACAGAGCCATCCTCCTTTGACACCTGGTCTTCAGTTCTGT
GCCCAACGTATATAGTTTGGACAATGACCAGGTTGGACTGTTTAAATGTCTTCAACTTACCACGTAATCCTCTTG
TAGGGATCACATCTTTCTTTATGATATTGTATTTCTACCTCTAACAGTAAAAATTCATTCAACCTTAAAGC
TCACTTCAAATTCCTTTGAGAAGTTTTCTTTCTCCGCAACCAGATGTACATATTTGAACTCTCTTTGTACT
TGGAGGGCACTTCTTTCTGTTAGTCTTTTATTTTATTAATCTCTGTATCCTTAGATAGTCTCCAACAACCA
AAGGTTGGGACTCTGTCTTACATATCTGGGTGCCCTCATAGTGCAGTAATAAGTAAGTTGATTATATACGAGCT
ATGTAACCTATATTTTAAATGGTTGGATATCACTGAGTTTTTTTTTTTAAAGATTTTTTTTATTGAGGTAACTT
CACATAACATAAAATTAATTTTAAAGTGAGAAGTTTCAGTGCCACTTAGTATTGTTAACAATGTTGCATAACC
ACCACCTTTATTTAAAGTTCCAAAAAAATGTTCTCCTCTAAAAGGAAACCCCATCCCATTAAGCAGATACTCTC
CATTCCTTCTTCTCCAGCCCCCAGCAACCACCAATCTGCTTCTGTCTCTATGGTTTTATCTATTCTTGCTAT
TTTATATAAATCGAATTGTATGAGACCTTTTGTGTCTGGCTTCTTTCACCTAGTACAAGTTTTTGAGATTTATTT
ACATAGTAGCATGTATCAACACTTCATTTTATGGCCAAATAAAATTGTATTATGTGTTTATAGCACAAATTTATT
TATCCACTCATTTCATTGATGGACTTTGGGTTGTTTCTGACTTTTGGCTATTGGGAATAGTGCTGCTATGAATGTT
TGTGTACCTGTATTTGTTTGAATGCCTATTTTGCAATCTCTTGGGTATATATCTAGGAGTGGAAGTGTGGGTCA
TATGTTAATCTATGTTTAGCTTTTTGAGGAACAGACAACTGTTTTCCACAGCAGTTGAACCATTCACATTCC
CACCAGCAATGTATGAGAATTCCAATTTCTGTCCACTTCCTCACCAACACTTATTATTTTCTTTTCTTTT
AAAAAAATAAGTTATGGCCATCTTAGTGGGTGTGAAGTGGTATCTCATTGTGTTTTTTTATTGCAATTCCTATG
TAATGAGCTAGAACTAAAGTACAACTAGATGGGACATCCAGTCCCTTTGATAGATAATGCTGAGTAAAAAATG
AGATGAAAGACATTTGTTTGTGTTTTAGAACATGAGTGACAGTTTGTTAAAAAGCTTTAGAGGAGGAATGAAAACA
AAGTGAAGTACACTTAGAAAAGGGCCAAGTGGACATCTTGATGTCAAGTGCCTAGTTCAGTATCTTTTTTTTTT
TTTTTTTTTTTTTTTGGAGACAGTGCCTCACTCTGTACCCAGGCTGGAGTGTAGTGGCATGATCTGGGCTCACTGC

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FIGURE 402B

AACCTCCTCCTCCTGGATTCAAGCAATTCTCTTGCTTCAGCCTCCCAAGTAGCTGAGACTACAAGCACCCACCAC
CACACCCGGCTAATTTTGTATTTTTCAGTAGAGACGGGGTTTCGCCACATTGGCCGTGTTGGTCTTGAACCTCTG
GCCTCAAGCAATCCGCCTACCTCAGCCTCCCAAAGTGCTAGGATTACAGGCATAAGCCACTGAGCCCAGCCCTAG
TTCAGTATCTTTTATGTAAATTATAAACATCTGCAACATTATGTATCATATGCAGATACTTATTGCATTTCTTTT
ATTAGTGGTGAAAGTGTTCTATGCATTTATTGGCTCTTGAATTTCCCTCATCTATGAATTGTCATTCACACACCTA
CTTTTCTGCTTCGTTTTTACATATGCTTTGCCTATTAAAGATATTATCCCTCTGTTTTATATTTTCTCTCATT
TTGTATTGCCTTTTAAATTTTGTTATGATGTTTCATTAATAAACAGTGTTTTGTTTTCTCTATAAAAAAAAAA
AAAAA

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FIGURE 403

METLSNASGTFAIRLLKILCQDNPSHNVFCSPVSISSALAMVLLGAKGNTATQMAQALSLNTEEDIHRAFQSLLT
EVNKAGTQYLLRTANRLFGEKTCQFLSTFKESCLQFYHAELKELSFIRAAEESRKHINTWVSKKTEGKIEELLPG
SSIDAETRLVLVNAIYFKGKWNEPFDETYTREMPFKINQEEQRPVQMMYQEATFKLAHVGEVRAQLLELPYARKE
LSLLVLLPDDGVELSTVEKSLTFEKLTAWTKPDCMKSTEVEVLLPKFKLQEDYDMESVLRHLGIVDAFQQGKADL
SAMSAERDLCLSKFVHKSFVEVNEEGTEAAAASSCFVVAECCMESGPRFCADHPFLFFIRHNRANSILFCGRFSS
P

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FIGURE 404

ATTTTGA CTGGCAAAATGTGGCAGATTT CAGGGATGCAGGTGGATCCTTAACTGAGGTCAAGGTGGAAGAGGAAG
AAAGGGATCCGCAGAGTCCTGAATTTGAAATTGAGGAGGAGGAAGAAATGTTGTTCATCCGTCATACCAGATTCCA
GGAGAGAAAATGAACTTCCCGATTTCCCCACATTGATGAGTTTTTTACCTTAACTCAACACCATCTAGATCTG
CATATGATGAGCCTCATTTGCTCGTAAATATTGAGAAAACAGAACTAGAGTTGGAAAAACGACGACTGGATATCG
AGGCCGAAAGGCTGCAGGTAGAAAAGGAACGCCTACAAATCGAGAAAAGAGAGGCTGCGGCATTTAGACATGGAAC
ATGAGCGGCTTCAGCTAGAGAAGGAGCGGCTGCAGATTGAAAGAGAAAAGTTGAGGTTACAGATAGTCAATTCAG
AGAAACCGTCCTTGGAAAATGAACTTGGTCAAGGAGAAAAATCCATGCTTCAACCACAGGACATAGAAACAGAGA
AGTTAAAACCTTGAGCGAGAACGCTTGCAACTGGAAAAGGATAGGCTGCAGTTTTTGAAGTTTGAATCTGAGAAGC
TGCAGATTGAAAAGGAACGCTTACAGGTAGAGAAAAGACAGACTTCGAATTCAGAAAAGGACACTTGCAGTAGAT
TTTTCCAGGCTTCCATTTAGCAAATGTTTGAAAAC TCTAGATTTTTCTCATATCAGGTGATATAATGATGGTTGC
TGGATTAGCTGTGGTTTCTTGTCTAATGTCAGTGTTCAGTAGGAAAAAGTTATATGTGGATAACTGTATGCCTAA
GTAGTATATAAAAGCTGTGCCCTAGCGTAAACAGTATAGCAGAACTTACTGTGCTGGACTCTTTACCTTATAAT
ATTACATAGAGTCTTGTATTGTCTGTGTACCCAGAGTTTACAATTATGTCCATATAAAATCTAGCCCAGAAGTT
CTCATCTGGGGTAGATTTTGGCCTTCAGAAGACCAATTTGGTGATGTCTGGAGACATGTTGGGTTGTCAAACTG
GGGTGGGGAAAAGGTTGCTACTGTGCAATGCATACCTCCTCAACACCCCCCACACTCAGTAAAGAATTTTCCAA
CCCAAATATCATTAGTCCTGAGGTTGAGAAACCTGTCTAGCCTAACTGTATACCTCTATAGCTATGTTTTAT
AGTTTTAGAATATTAAACCTCAGATATTTATGTGGGTAGGTACTTAAATGGCCAAAAACTTTAACTATGAAATG
TTACTGTGTAGTATATTGAATATAGGAAGTGATGAAGATTATAGGTATTTTATTCCCATGTTTCCATCTATAAAT
AGCCTTCTCAGATTCAGAAAACAATACAGAGAACATCAGAAATTTTCTAAAATGGGTCACTTTGAAAAGAATTCT
TTTTCTCACTATTAATGCTTTAGAAGCAAGACGCAATTTTAAAGCTTTAGTTCCTTTTCTTTCAGTCATTGCTT
AGTTTGGGTACAAAATGTCATTT CAGTAATGTACTGAAATCTTATAAGTGAATAGTTGAAGCTAGTAAAAATGA
TACCAGTATAAAAAATGGTACTTGTAGTCCATGAGCTTGAACCCAATGACTGATTGTTTGACTTTTAAATAAGTA
ATAGCAGCCATTTGGGAGTAGGGGGTAGGTGGGGAAGATGTACTCCGTATCAAATAATAATGATGTTGAAATAAT
GATAGTAGGTATGTATTATGGATTGGAGAAGCACTTATTACACTATCTAACCTAATATGTAGAACAATTCTTGAG
AGTTGTATCTGTCGTTATTTCTGAATGTGAAGCTCAGAGAAGTGACACAGAGTAAATGGCTGATCTTCTATATTG
TAGTATATTTTGTCTTCCCTCTTCCCTGAGGAACAAAGCACGTATCTTTAGTCTCTTTGATATTTATTCTGAGA
CCAAGGGCTTGCTTGACCTGATGATTTTCTTCAGCTCTCTGAAGGTGCTTTTTCCACAATCCAAGTGATTCTGA
TACACACTAAAGTTGAGAATCACTGCACTAGATCACTTTGTGTTTTCTGATTTTCAAGGTTGATACGTAGCTTTA
ATACAGCTCCTCTGTTGACAGTTATTACTTTAATTTGCATTTGTTCCCTTGTAAGAATGGCTGGAACTGTGTGT
TGACATTTGAGGATGGGTATGCAAGGAAAAAATATACTTCTGTTTACTTACTCTGACTTTGAAATAGTGTTATTT
TTCTATATCTGAAATAAATGCTTCTACCATAGAAAT

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FIGURE 405

MLSSVIPDSRRENELPDFPHIDEFFTLNSTPSRSAYDEPHLLVNIEKQKLELEKRRLDIEAERLQVEKERLQIEK
ERLRHLDMEHERLQLEKERLQIEREKLRLQIVNSEKPSLENELGQGEKSMQPQDIETEKLLERERLQLEKDRL
QFLKFESEKLQIEKERLQVEKDRLRIQKEGHLQ

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FIGURE 406

GATCGAATTTAATACGACTNCTATAGGGAATTTGGCCCTCGNGCCAAGNAATTCGGCACGAGGACATCCATGGCA
TGGCTGACAGCTTCCGTGACCAACATGGTACAGCCCTTCCTACCTTCTCATTATTCTACTTTGTAACCTAACAG
CATTATGCCAACGATAATTTAACTAGAAAAAGTTCTGAGAGAATAACAAATCTGTGATTTTATTATGTCTTTTA
TCATGTTTTGCAGCTTTCAGATTCAGATGTCAATAATTTGTTTCTATGATCAGAGTATATAAATCCCATGCAAAC
ATATCTCAGCATAACTGATTTTGTTTCTAAATAATTAAACAGGATAAAATGTTATTTGTTGTAAGCTGTTGACAT
TTGTAAGGAAAATTTTGTTTCACTGAATATGTTTAGAGATGCCGCCAGAACATTAACCATTGTTTCATTTTTATGT
AAGTTGAAGAAAAATGAAGCTAGATAGCATGTTCTCCATTTGCAGTCTACAAAGGGGAATTTTATTGCTTAAATT
AAAGTTTCATTTTCTGGCCTGTGCAAGAGACTTTTATATCTAAAATATGGATGTACGTTTTTCATATTTTAGAGT
TCATTGTATGGAAAAATACCATCAAAGTTGACCAAAGATTTTGAAAATCCTTACCAGTTGTTTGTCATATGTTA
AAGTCTTATGGGTAATTTTATTTATTTTATCTTGGTCTCTTGCTGGTTATTGGCAGACTCAGTCTTTCIGTTTTT
ACAAAGAACTCATGAAGAGGACGATAGGGGAAACCCACGTNTGCCTTTGAGGCTAGGGACTATGTTGTAAGNTCA
CCCTGTGATGGNCAGGTCATACAGTCATGG

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FIGURE 407

CTCTTACAGCAAATATCACTACCTGACATATTTTACTAGAATGTAAGCTCCATGAGGAGGGGATTTTGTTTTGTT
TACCATGGTGTTTTTAGTATTCAGAACATGCCTGCTTACATAGTAGTTGCTAAAAAATTTTTTGTTAAATGAAT
AAGTTGAATCATGTTGTTCCAGTGTAGACAGAATAGGTATATGTGGTTGAAAAATGAACAGCACAAAGTTAGCT
CCCCAAAAATGGCAAAGTGAAATAAAGAAACATTTCTGAAGAACATTGTTGAACTGTAATCCCAGCACTTTGGGA
GGCTGGGGCAGTTGG

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FIGURE 408

AAAAAAACAAAAACAAAAACAAAAACCTTCCAAAAGAAGTTTGAGATAATTTTATGTTTAGAAAAATTAG
AAATTGGATTGAGTAAAATTTACATATTTTACACAAGAGGACTAACATCTTTATAATATTTAACCTTTCAGTAAA
TTTATGTTTTATGTTTCTCAGCCTATCTTTTCTAGTATAGGTGATTTTTTTAGTGTGGTTACTATTGTAAATGAG
ATCCTACTACTTTAAAAAATGAAAATTAAATCTATCGCTTTTATGACTTTAAACATTAGACTTATGTAAGTGTA
AACATTATTTAAAAACATAATGTAGAAAATTAAAGTCCCCATAATTAAATCCCTTTCCCCCAGAAAAAGTCAA
CAGCATATTCATCAGTTTTTTCCTAAAGTATGTTTTCAGCACTTTGACCATATGAGACAACCCTTCTGCTGTTAGC
ATTTTTCTCTTTGCAATAGATCTTCCTATGTCAGTACACATCAATCTACCTCATTCTTACCTCTGCATAAGAGAG
TAGTGTGTAGTTGTATAATAGTTTAACTTGGCGATTGGTTATTGATTTTGTAAGTAGCCAGTTACTGAATTATTC
TAAAGGTTTTGCTGTTGTTAATTTCTTTTCGCTTTTTCAGTTGGGTAATAGTTCTGGGTAGGTTGATAATTTTAT
TCCCATATTTGTAATCTTATTTCACTTTCTCAACTCATCACATTGACTGGTACTTTTAGAACAATGTTAAAAAAC
ATTTACATAATTTGTGCTGATATTGTACATTATTTGATATATATATATTTTTTTTACTTAGAAGAGTGTTTCTCCA
AAACTATAAATTTGACTCTTAGTGTAAAATAATCTTAATATTTGAATTATACATTCAGGTTATGCCCTCTATTTTC
TAGTTTGATGAAAATATTATTAGTAAATGGATGTTGGGGTTTTATTAAATGGCTTTTTTCCACATCTGTCAAGATG
ATCAACTGGCTTTTCTCTATTATGACTTTAGATGAATCGTTTTAATAGATTTGCTAATGTTAAGACATCTCTGCA
TTTCTACAAGAATCTGATGTAGTCATAGTATACTATTCTTTTAATATACATCTCCTTTCAATGTTAACAGTGGTT
ATTTATGATTGGTTGGTCCATAGTAGATTTTTATTTTGTGTTTCTTATCTGTACTTTCTGATTTTTCTACAAAGA
TTGTGTATTACTTGTATAATAAAAAATAAGAGCTTTAAATTGTGAAATTCCTCTGGATTGGTTTTCTCATTTTAT
TATGGAATTTTTCATA

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FIGURE 409

GGCACGAGGCAAAGAGCTGCCTAAAGAACTGGTAGCTGGAGCAAACCTGCAGAGATCAAGATGACCCTAGTCCAC
GGAACCAGCAGCCCAGGTCAGCCACATTCAGGAGCACCACCGAGGCACGGCAGGGAGAGCAAAGTTGCTGGCCCC
AATCATTCCTCCTTTTCAGGGCAGGAGAGGCAGAAGCTCACTCTTTAGACATGTTCTTGATGGTCTTGTGCTCTT
TCATGGCCTTCTCCCAATCGCTGCCATTGAATTCC TCAGTGACCATACTCCGCACAGTGCCCTCATCCAGGCAGT
GGGGGGCAATTCCGAAGCCTCCGGGGTTTGATCGTGGAGTATAGAAGCTCTGAACGCCACATCTCTTACAGAAGG
TATGCTGGGCTTTGTGAGTATTGAACGTGTAAGTCGTTATGTGCTCAGCTCCCTTCAGGAGCTTGAAGCGAGAAG
CCTGGAACAATGAAGTGTCTATTCTGCTTCTTCTTGCNAATGCTGCAACTACAGAAAGACAGAGCAAATTCAG
ATTG

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FIGURE 410

ATTTGGAAGATTTTGTTATGGTGTCACTGTCATTTTGACATACCCTATGGAATGCTTTGTGACAAGAGAGGTAAT
TGCCAATGTGTTTTTTGGTGGGAATCTTTCATCGGTTTTCCACATTGTTGTAACAGTGATGGTCATCACTGTAGC
CACGCTTGTGTCATTGCTGATTGATTGCCTCGGGATAGTTCTAGAACTCAATGGTGTGCTCTGTGCAACTCCCCCT
CATTTTTATCATTCCATCAGCCTGTTATCTGAAACTGTCTGAAGAACCAAGGACACACTCCGATAAGATTATGTC
TTGTGTCATGCTTCCCATTGGTGCIGTGGIGATGGTTTTTGGATTTCGTCATGGCTATTACAAATACTCAAGACTG
CACCCATGGGCAGGAAATGTTCTACTGCTTTCCTGACAATTTCTCTCTCACAAATACCTCAGAGTCTCATGTTCA
GCAGACAACACAACCTTTCTACTTTAAATATTAGTATCTTTCAATGAGTTGACTGCTTTAAAAATATGTATGTTTT
CATAGACTTTAAACACATAACATTTACGCTTGCTTTAGTCTGTATTTATGTTATATAAAATTATTATTTTGGCT
TTTATCAAGACTTGGCTTTTATGAGTAGTGCAATATAAAAGATAAAGAAAAGAAAAATTGATGTTTTTCACCTTTA
ACTG

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FIGURE 411

FGRFCYGVTVILTYPMECFVTREVIANVFFGGNLSVVFHIVVTVMVITVATLVSLIDCLGIVLELNGVLCATPL
IFIIPSACYLKLSEEPRTTHSDKIMSCVMLPIGAVVMVFGFVMAITNTQDCTHGQEMFYCFPDNFSLTNTSESHVQ
QTTQLSTLNISIFQ

FIGURE 412

AA

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FIGURE 413

MPVAVGPYQSQPSQCFDRVKMGFVMGCAVGMAAGALFGTFSCLRIGMRGRELMGGIGKTMMQSGGTFGTfMAIGM
GIRC

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FIGURE 414

AACATGTAAGACTACTGTTTACAAATTTGGACATTTTCCTTTCAAACACATTTTTCATGAATATATTATAGGAAAG
TTAAAACCATCTCTATTCTAAAAGGAAAATCTACCATTTTGCTCAGAGAGAAAGTTACTGAGTTTGTCTATGTGA
TTTTAAGTAGTATTGATTAGAGTATTAAAGAAATGGGGTACTTCAAGTAACATAACACCTGATATTTAAATCTAA
GTTTTAAAAATGTATTTACCCATTGTTAATGAAAGTGTTTCTAAGATGTAACCCCTGGTTAGCTATTCCGTCTT
CTTGCCTTGATGGGTTGACTGGTGGTGAATGTGCTGTTGTCATTCCATTGACAGTTCGGGATTGTGGTGGTCTC
AGCATATTAGCATAGATGTGAGTTGTAATTTTATAGGATTATGGAAGTGAATTGTGGAACCTCCTGCAGGGCAGA
CTCTGGAGGCTAGCTTTTTAGAAAAC~~TAA~~ACCTCCAGTATAAACTTAATTTCTGTCATTGCCCCATTTTCTTG
AAAGTTAAGTGCCAGAAAAGAAAAGGATCGAGTCTCTCTTTTCTTTCTACAATAAAACAGAATATACTTTCTCCA
GGGTTGGTGGTGGGTTCCTTTTTCTGTTGAGGTGGATTCTGAGATTGAGGAGGGGCTGGAGAAGACAGAGCATG
AGGGAAAGAGACTGAGAACATACTCAGGCTGCCCTCGCCTCCTTTTCCCTTTTCGTGCTCCTGTCTCCCATCTAGG
AGGACCAGGGCTACCAGTCCTTGTGGGGACAAGTTTGAGTAGGATCAAGAGACATGTACTGCGCCAGGGCCGTGG
GTTACAACCTGTAATCC

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FIGURE 415

MKVFLRCNPWLAIPSSCLDGLTGGECAVVIPLTVRDLWWSQHISIDVSCNFIGLWNCNCGTPAGQTLASFLN

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FIGURE 416

TGCAGCTAGTGTGTCAACTCAGCGTTTCTCCTCTCGTCCCTGGAAGAGCTAAAGATGGCTGAATTTCTAGATGAC
CAGGAAACTCGACTGTGTGACAACTGCAAAAAGAAATTCCTGTGTTTTAACTTTACCATCCATGAGATCCACTGT
CAAAGGAACATTGGTATGTGTCTACCTGTAAGGAACCATTTCCCAAATCTGACATGGAGACTCACATGGCTGCA
GAACACTGTCAAGGTGACCTGCAAATGTAACAAGAAGTTGGAGAAGAGGCTGTTAAAGAAGCATGAGGAGACTGAG
TGCCCTTTGCGGCTTGCTGTCTGCCAGCACTGTGATTTAGAACTTTCCATTCTCAAACCTGAAGGAACATGAAGAT
TATTGTGGTGCCCGGACGGAACCTATGTGGCAACTGTGGTGCATATGTCTTGTGAAAGATCTGAAGACTCACCT
GAAGTTTGTGGGAGAGAGGGGGAGGAAAAGAGAAAAGAGGTTGCCATACCTCCTAATGCATATGATGAATCTTGG
GGTCAGGATGGAATCTGGATTGCATCCCACTCCTCAGACAAATTGAGGCTCTGGACCCACCCATGAGGCTGCCG
CGAAGGCCCTGAGAGCCTTTGAATCAGATGTTTTCCACAATAGAACTACCAACCAAAGGAACATTACAGCCCAG
GTTTCAATTCAGAATAATCTGTTTGAAGAACAAGAGAGGCAGGAAAGGAATAGAGGCCAACAGCCCCCAAAGAG
GGTGGTGAAGAGAGTGCAACTTGGACTTCATGTTGGCCCTAAGTCTGCAAAATGAAGGCCAAGCCTCCAGTGTG
GCAGAGCAGGACTTCTGGAGGGCCGTATGTGAGGCCGACCAGTCTCATGGCGTCCCAGGTCTCTCAGTGACATA
AAGGGTGCAGCTGACGAGATCATGTTGCCTTGTGAATTTTGTGAGGAGCTCTACCCAGAGGAACTGCTGATTGAC
CATCAGACAAGCTGTAACCTTTCACGTGCCTTACCTTCACTCAATACTGGCAGCTCTTCCCCCAGAGGGGTGGAG
GAACCTGATGTCATCTTCCAGAACTTCTTGCAACAGGCTGCAAGTAACCAGTTAGACTCTTTGATGGGCCTGAGC
AATTCACACCTGTGGAGGAGAGCATCATTATCCCATGTGAATCTGTGGGTACAGCTGGAAGAGGAGGTGCTG
TTCCATCACCAGGACCAGTGTGACCAACGCCAGCCACTGCAACCAACCATGTGACAGAGGGGATTCTAGACTG
GATTCCCAGCCTCAAGAGACCTCACCAGAGCTGCCAGGAGGCGTGTGACACACCAGGGAGACCTGTCTTCTGGT
TACCTGGATGATACTAAGCAGGAAACAGCTAATGGGCCCACCTCCTGTCTGCCTCCCAGCCGACCCATTAACAAT
ATGACAGCTACCTATAACCAGCTATCGAGATCAACATCAGGCCCCAGACCTGGGTGCCAGCCAGCTCTCCTTGT
GTGCCGAAGCTCAGCAACTCAGACAGCCAGGACATCCAGGGGCGGAATCGAGACAGCCAGAATGGGGCCATAGCC
CCTGGGCACGTTTCAGTGATTCGCCCTCCTCAAAATCTCTACCCAGAAAACATTGTGCCCTCTTCTCCCCTGGG
CCTTCAGGGAGATACGGAGCTAGTGGTAGGAGTGAAGGTGGCAGGAATCCCCGGGTACCCCTGCAGCTGCCAAC
TACCGCAGCAGAACTGCAAAGGCAAAGCCTTCCAAGCAACAGGGAGCTGGGGATGCAGAAGAGGAAGAGGAGGAG
TAATGGTGTCTCCAGAGACTTTACATCGGTTTCTGTCTTCTGTGCACAGCAGCACTTGCCGCTGTGCAGGCCAC
CTCTTTGGCTCTTTGGGTGGGAGAGTTTTTCCAGATTTTAGATTTTTCTAGGTTATGGCCATTTTGTGCTTTTGG
AGGTTGTGCTGTGGGGTTTGGGTTTGGGGAAGGGAGCAGGGTGGCGGTTGAGGAACGCTTCAGCCTTAGCTGC
TACCTTTCCGCAGCAGTGAAATACAAGCTGCAGCCTCGGCTGCCAGGGCTCCCTTTTGACTTATTGTGCGCCACTG
CCCCTTGGTGCTGTGTGGTCCCAGTGGAAGGAGGGGAAGATTTTGGAAACCTGGTAGCCACCAGTAAGGTGATTC
TCTGCCCTGTTGGGGCTAAATTTGGGGCTTTTGGGCAACCTCTCCGTGTACTGCGTCTGTCCACACTCGATTG
GGCCCCAGGTGTGTATGAGGCGCTCTGGTAAGGTGCTCAGGCCAGTTGCAATGTCTGTCAGTAACGAGGCTTTTG
ATGTGTTGAGCTGGAGGTGAGTGGACCGGGGCTGTGTTTTAAGCTGCTTCCCTGGCATTGTCATCACTGCCCTTC
TGTTCCCGGGGGAGCATGGATCTTTTGTCTCACTGCTTTCTAATGGGGAGGGCTGAGGGCTCCCTGTCCCCACA
GCAGGTATGTTTGTCTGCCCCAGCCCCACACTTGCTCTGAAAACCAAGTGTGAGAGCCCTTCCCTTGTTTTT
ATTTTACTGTTATAATAATTATTAACCTTCTTGTAAATAGAAATAAAGTTTGTACTTGAGTTTCAGCTC

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FIGURE 417

MAEFLDDQETRLCDNCKKEIPVFNFTHIHCQRNIGMCPTCKEFPKSDMETHMAAEHCQVTCKCNKKLEKRL
KKHEETECPLRLAVCQHCDLELSILKLKEHEDYCGARTELCGNCGRNVLVKDLKTHPEVCGREGEEKRNEVAIPP
NAYDESWGQDGIWIASQLLRQIEALDPPMRLPRRLRAFESDVFHNRTTNQRNITAQVSIQNNLFEEQERQERNR
GQQPPKEGGEESANLDFMLALSQNEGQASSVAEQDFWRAVCEADQSHGGPRSLSDIKGADEIMLPCEFCEELY
PEELLIDHQTSCNPSRALPSLNTGSSSPRGVEEPDVIFQNFLQQAASNQLDSLMLGSLNSHPVEESIIIPCEFCGV
QLEEEVLFHHQDQCDQRPATATNHVTEGIPRLDSQPQETSPELPRRRVRHQGDLSSGYLDDTKQETANGPTSCLP
PSRPINNMTATYNQLSRSTSGPRPGCQPSSPCVPKLSNSDSQDIQGRNRDSQNGAIAPGHVSVIRPPQONLYPENI
VPSFSPGPSGRYGASGRSEGGNRSVTPAAANYRSRTAKAKPSKQQGAGDAEEEEEE

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FIGURE 418

CCCTGCGCGGCTGCTGGACCGACGGGCGCACCCAGGTAGGGGGGCGGCTGAGCCGCGCAGTGCGGACCCTCGCGG
GGAAC TGCGCCGCCGCCACC **ATGT**CTCAGGAAGGTGTGGAGCTGGAGAAGAGCGTCCGGCGCCTCCGGGAGAAGT
TTCATGGGAAGGTATCCTCCAAGAAGGCGGGGGCTCTGATGAGGAAATTCGGCAGCGACCACACGGGAGTGGGGC
GCTCCATCGTGTACGGGGTAAAGCAAAAAGATGGCCAAGAACTAAGTAACGATCTGGATGCCAGGATCCACCAG
AAGATATGAAGCAGGACCGGGACATTTCAGGCAGTGGCGACCTCCCTCCTGCCACTGACAGAAGCCAACCTACGCA
TGTTTCAACGTGCCCAGGACGACCTTATCCCTGCTGTGGACCGGCAGTTTGCCTGCTCCTCCTGCGACCACGTCT
GGTGGCGCCGCGTGCCCCAGCGGAAGGAGGTATCCCGGTGCCGGAATGCCGGAAGCGCTACGAGCCAGTGCCAG
CTGACAAGATGTGGGGCCTGGCTGAGTTCCACTGCCCGAAGTGTCGGCACAACCTCCGGGGCTGGGCACAGATGG
GGTCCCCGTCCCCCTGCTACGGGTGCGGCTTCCCCGTGTATCCAACACGGATCCTCCCCCGCGCCGGGACCGGG
ACCCGGATCGCCGCAGCACCCACACTCACTCCTGCTCAGCTGCCGACTGCTACAACCGGCGAGAGCCCCACGTGC
CTGGGACATCCTGTGCTCACCCCAAGAGCCGGAAGCAGAACCACCTGCCCAAAGTGCTCCACCCAGCAACCCCTC
ACATTAGCAGTGGCCCCACTGTGGCCACCTGCTTGAGCCAGGCTGGCCTCCTGGAAGACCTGGACAACCTCATCC
TGGAGGACCTGAAGGAGGAGGAGGAGGAAGAGGAGGAGGTGGAGGACGAGGAGGGCGGGCCAGGGAG**TGAC**CCCC
TGCCAGGTGCAGATACAAACCAGACACGGTCTGTGGCTACTTTGTGTTATTATAAGATATGAGCTCAAACCGAGA
TATGAATGACCTTGGGGAGCCATCTGAGGCCAAGATATTGACGGGGGGGATTCTGGGTCCCATTTTCAGCGCCC
AGGGTCACAGATCCACAGTGGGAAGTTCTGTGGGACACATTGGCACTGAGCCACAAAGAAGGTGTGGCCAGAACA
ACTTGGGCTCCTGCTGACCAATGTCTCTAGGGCC TAGGGGACAGAGGAACACAGAGTCACAGCTTCAGGGGCCG
AATGAGCATGGCGGCCTTCTGAGAGAATATGCCCCACCACGAACTCAGCCCAGTAGACACCATCCTGGTAGCG
GCTTCGGTAGTGGCCGCCGTGGTGCCACACACCGTTGAGGTTGGAGTGGGCACAGGCATGGTACCACCAGCCTCC
CCGCTGGTACAGGGCACAGTTACCTGAGGGGAGAGAGAGAGTCCATGTCCTCTCACCAGAATAAAAGCCTCTACC
TGCACCTCACAGTGCAAGGCTTTTGCCAGGCATCCCCTGGCCCCCTCCCATTCTTATTGAATACAAGCCCTGATCT
TCCATCTCCTCAGCAAAAAAATAGGAGCCCTGGCCCCCAACTTTCTTCAGAGTAATAGCCTTAATTCCTTCCCT
ATCTCCTTACCAAAGTACAAGTCACATCTTTCCACCTTTTCTGCAAACTAGGAGTCTACCGTTTATTCTTTAT
CAAAGAAAAGTATCTACTTCTTTCTAGAATAAGAGTACTAGCTCTCACCCCTCTGCCCTTTACTTGAACAGGAGT
CTTGATTCTTTTTTTGCCTCATCAGAGAAGGAATCTGGACTCCCCATCCCCCACCAGGATAAAAGTCCTGACCT
TTGTTCTCTTGACGGAATAAAAGCTTGCTTATCCTT

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FIGURE 419

MSQEGVELEKSVRRLREKFHGKVSSKKAGALMRKFGSDHTGVGRSIVYGVKQKDGQELSNDLDAQDPPEDMKQDR
DIQAVATSLPLTEANLRMFQRAQDDLIPAVDRQFACSSCDHVWRRVPQRKEVSRCKCRKRYEPVPADKMWGL
AEFHCPKCRHNFRGWAQMGSPSPCYGCGFPVYPTRILPPRRDRDPDRRSTHSCSAADCYNRREPHVPGTSCAH
PKSRKQNHLPKVLHPSNPHISSGPTVATCLSQGGLLEDLDNLILEDLKEEEEEEEVEDEEGGPRE

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FIGURE 420A

TGTGGCTGTGACCTGGCACAAGGGGGCTTCTTCATAAAGAACGGAGAGTATCTCTGCACCCTGGACTACCAGCGG
ATGTACGGGACACGCTGCCATGGCTGTGGGGAGTTCTGTGGAGGGCGAAGTGGTGACTGCTCTGGGCAAGACCTAC
CATCCCAATTGCTTTGCTTGTACTATCTGCAAGCGCCCGTTTTCCACCCGGAGACCGAGTCACATTCAATGGGAGA
GACTGCCTTTGTCAACTCTGTGCACAGCCGATGTCGTCCAGTCCGAAAGAAACCACCTTCTCCAGCAATTGTGCC
GGCTGCGGAAGAGATATCAAGAACGGGCAGGCGCTGCTGGCGCTGGATAAGCAGTGGCACTTGGGGTGCTTTAAA
TGCAAGTCTTGCAGGAAGGTCTCACCGGGGAGTACATCAGCAAGGATGGTGCTCCGTACTGTGAAAAGGACTAC
CAGGGACTCTTTGGGGTGAAAATGTGAGGCGTGTACCAGTTTTATCAGAGGAAAGTCTTGAGGCAGGTGACAAA
CATTACCACCCAGCTGTGCACGATGCAGCAGATGCAACCAGATGTTTACAGAAGGAGAGGAAAATGTATCTTCAA
GGCTCCACCGTTTTGGCATCCCCACTGTAAGCAATCTACGAAGACCGAGGAAAAGCTGCGGCCTACCAGGACATCC
TCGGAAAGTATTTATTCTAGGCCAGGCTCCAGTATTCCTGGCTCACCAGGTCATACTATCTATGAAAAGTAGAC
AATGAGATCCTGGATTACAAGGATTTAGCAGCCATTCCGAAGGTCAAGGCAATTTATGACATTGAACGTCCAGAT
CTTATTACCTATGAGCCTTTCTACACTTCGGGCTATGATGACAAACAGGAGAGACAGAGCCTTGGAGAGTCTCCG
AGGACTTTGTCTCCTACTCCATCAGCAGAAGGGTACCAGGATGTTCCGGATCGGATGATCCATCGGTCCACGAGC
CAGGGCTCCATCAACTCCCCGTGTGTACAGCCGCCACAGCTACACTCCAACCACGTCCCGCTCTCCCCAGCATTTT
CACAGACCTGGCAATGAGCCGTCCAGCGGCCGGAACCTCCCTCTCCCTTACCGGCCAGACAGCCGCCCTCTAACT
CCAACCTACGCTCAGGCCCTTAAACATTTCCATGTTCCAGATCAAGGAATCAACATTTACCGAAAGCCACCCATC
TACAAACAGCATGCTGCCTTGGCAGCCCAGAGCAAGTCTCAGAAGATATCATCAAGTTTTCCAAGTTCCAGCA
GCCCAGGCACCAGACCCAGCGAGACACCAGAGATTGAGACGGACCACTGGCCTGGTCCCCCTCATTGTGTGTC
ATAGGACCTGACATGAAACGCAGATCTAGTGGCAGAGAGGAAGATGATGAGGAACCTCTGAGACGTCGGCAGCTT
CAAGAAGAGCAATTAATGAAGCTTAACTCAGGCCTGGGACAGTTGATCTTGAAAGAAGAGATGGAGAAAGAGAGC
CGGGAAAGGTATCTCTGTAGCCAGTCGCTACGATTCTCCCATCAACTCAGCTTCACATATTCCATCATCTAAA
ACTGCATCTCTCCCTGGCTATGGAAGAAATGGGCTTACCGGCCTGTTTCTACCGACTTCGCTCAGTATAACAGC
TATGGGGATGTGACGGGGGAGTGCGAGATTACCAGACACTCCCAGATGGCCACATGCCTGCAATGAGAATGGAC
CGAGGAGTGTCTATGCCCAACATGTTGGAACCAAGATATTTCCATATGAAATGCTCATGGTGACCAACAGAGGG
CGAAACAAAATCCTCAGAGAGGTGGACAGAACCAGGCTGGAGCGCCACTTAGCCCCGTAAGTGTTTTCGGGAAATC
TTTGGAATGTCCATACAGGAGTTTGACAGGTTACCTCTTTGGAGACGCAACGACATGAAGAAAAAGCAAACTC
TTCT**TAAG**TCCCACTCGTGAATGGCAATTAGAGAAAGGACTGACAGTGGCGGTGCCCCATAGGATGTCATATTGAG
GCCCAAACCTTGATTGGAGAATTTGCAAACCTACCGTCGCTCAGCAACACCAAAAAGAGAAAAGTCTGGTTAAACAC
CATGAGTCAAATGTGGGGCCAGCCAACAGTAACACTTGCCAAGAAGCATGGCGTAGAAATTTCTATGTTCCGAAA
CACAGAGTAGTGTCCACATGTGACCTTTTACATTACCTTATGTATACAACAGGAGCTGCGTTGTTTTCTTCTTT
TTCTTTTCTTTTATCTGTTGTCCAACAACAGTGTGACTGTCCGGATAAGAGCTGGCAAGTGCCCTTAGGATGCC
GCATGGGAAAAATCGGTTATCATAATTTCAAAGTATAAATATATTTATTATGTAGCGCTGCGGCTAAGAAGGAAG
AGTGAGGGGTCTGTCCATGGGGTGGCAGTGATTTACACCCGCTTTCTTGAATGGCTTCGTGTTACTCAGCCGT
GCCCTGGCAGGAATGGAACCTCCATCAGGGAACAGGGCAGCTCTGTTTGAATGGGGTGAAAAACAGCAAAATTAAT
TCTTAGCAAGCTCCTTGTTCTCTACTGTTACCGGGACCTGGCTGGCAAATGACTTAGCTATTAGTATATTTAAA
AACTGTTCAAAGCAAAAGAGAAGGAACAGGAATGAAAGGAAACCTTCCCTTAACTCTTTCTGCTTCCCATAGCA
GGTCTGGTTCCCTGCTCCCCGCCTAGGACAGGAGCTGTCTGGAGCTCCACCTTTGCAAAGAAAGGAAAAACACAAA
TTGCCCCAGATTGGCCCAGTGGCATGCCATTAGGTGATTTTGCCTAGGGGCCATATCATTTCATGGCCAAAAAAA
ACCAAAAAGCAAAAAACAAAAACAAGTCCCATGTCTACTGACTCTAGTTCTTCCAGTCGTTATCCTCTGCTGTC
TCTCTGGCATCCTATGAATCAGATCAAGCCCATGCTGTTGTTGGTTTTTAAGGTTTTCTTTCAATAATAGGCTAAG
GAAAGACATGTTTTTCTCTTTTAAATCTCTGCAACTCCAAAGTAGACTCCTTCGAACGTATTTAATTTGGCCTTT
TCAGCTTTCTTCTTGCCAGCTCTGTGCAATTCATGGGTGTGTGTGCACATGTTGGTTTTCACTCACCCAGAGTAA
TTTTGTGAGCATGCATGTGCTTTTAAATTTCTGCTTGAATGTTTGTCTGTGTGTTGCAGCTTCTAAAGACATT
GTCACCGAGTGTGTGTGACTCAAAGATCAAGAGTGAGGCTAAACTGCGACCCCAACATCATTTCCTTCATGGAAA
GGTGTGGCGCTGATGTAGCTCATGGAAGGATCAGACTGGGAACCACAGAGGAAGGATGAGGTGGGATGTGGAGG
TCAGAGCATCTCACGAGAGTCCCTCAGGCTCTGCAACACTAGATTGCAATATGAGCCTAGGGTTTCCCCAACACG
TGCGTGCATATGAAACCACATCATGATTCCCGACGTGAGTTAGATGAGGGAGAGTTTGTGTAAGTCCACACCCAG
GAGGGTAAGCCACTTTATTATCATGCTTTGGGGCTGTGCTTAAGAATTTAAGCTCTGTTTTAAAGCCGAAGAAGA

FIGURE 420B

[illegible]

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FIGURE 421

MYGTRCHGCGEFVEGEVVITALGKTYHPNCFACITICKRPFPPGDRVTFNGRDCLCQLCAQPMSSSPKETTFSSNCA
GCGRDIKNGQALLALDKQWHLGCFKCKSCGKVLITGEYISKDGAPYCEKDYQGLFGVKCEACHQFITGKVLEAGDK
HYHPSCARCSRCNQMFTEGEEMYLQGSTVWHPDCKQSTKTEEKLRPTRTSSESIYSRPGSSIPGSPGHTIYAKVD
NEILDYKDLAAIPKVKAIYDIERPDLITYEPFYTSGYDDKQERQSLGESPRTLSPTPSAEGYQDVRDRMIHRSTS
QGSINSPVYSRHSYTPTTSRSPQHFRPGNEPSSGRNSPLPYRPDSLPLTPTYAQAPKHFHVPDQGINIYRKPP I
YKQHRALAAQSKSSEDI IKFSKFPAAQAPDPSETPKIETDHWPGPPSFAVVGPDMKRRSSGREEDDEELLRRRQL
QEEQLMKLNSGLGQLILKEEMEKESRERSLLASRYDSPINSASHIPSSKTASLPGYGRNGLHRPVSTDFAQYNS
YGDVSGGVVDYQTLDPDGHMPAMRMDRGVSMNMLEPKIFPYEMLMVTNRGRNKILREVDTRLERHLAPEVFREI
FGMSIQEFDRLEPLWRRNDMKKKAKLF

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FIGURE 422

CCCGGACGTGCGGCTCCCCTCGGCCTCCTCGCCATGGACGCGGACGACTCCCGGGCCCCCAAGGGCTCCTTGCGG
AAGTTCCTGGAGCACCTCTCCGGGGCCGGCAAGGCCATCGGCGTGCTGACCAGCGGCGGGGATGCTCAAGGTATG
AACGCTGCCGTCCGTGCCGTGGTGCGCATGGGTATCTACGTGGGGGCCAAGGTGTACTTCATCTACGAGGGCTAC
CAGGGCATGGTGGACGGAGGCTCAAACATCGCAGAGGGCCGACTGGGAGAGTGTCTCCAGCATCCTGCAAGTGGGC
GGGACGATCATTGGCAGTGCGCGGTGCCAGGCCTTCGACGCGGGAAGGCCGCCTGAAGGCTGCTTGCAACCTG
CTGCAGCGCGGCATCACCAACCTGTGTGTGATCGGCGGGGACGGGAGCCTCACCGGGGCCAACCTCTTCCGGAAG
GAGTGGAGTGGGCTGCTGGAGGAGCTGGCCAGGAACGGCCAGATCGATAAGGAGGCCGTGCAGAAGTACGCCTAC
CTCAACGTGGTGGGCATGGTGGGCTCCATCGACAATGATTTCTGCGGCACCGACATGACCATCGGCACGGACTCC
GCCCTGCACAGGATCATCGAGGTGCTCGACGCCATCATGACCACGGCCCAGAGCCACCAGAGGACCTTCGTTCTG
GAGGTGATGGGACGACACTGTGGGTACCTGGCCCTGGTGAGTGCCTTGGCCTGCGGTGCGGACTGGGTGTTCTT
CCAGAATCTCCACCAGAGGAAGGCTGGGAGGAGCAGATGTGTGTCAAACCTCTCGGAGAACCCTGCCCGGAAAAA
AGGCTGAATATTATTATTGTGGCTGAAGGAGCAATTGATACCCAAAATAAACCCATCACCTCTGAGAAAATCAAA
GAGCTTGTCGTACGCAGCTGGGCTATGACACACGTGTGACCATCCTCGGGCACGTGCAGAGAGGAGGGACCCCT
TCGGCATTTCGACAGGATCTTGGCCAGCCGCATGGGAGTGGAGGCAGTCATCGCCTTGCTAGAGGCCACCCCGGAC
ACCCAGCTTGCGTCGTGTCACTGAACGGGAACCAACGCCGTGCGCTGCCGTGATGGAGTGCCTGCAGATGACT
CAGGATGTGCAGAAGGCGATGGACGAGAGGAGATTCAAGATGCGGTTGACTCCGAGGGAGGAGCTTTGCGGGC
AACCTGAACACCTACAAGCGACTTGCCATCAAGCTGCCGATGATCAGATCCCAAAGACCAATTGCAACGTAGCT
GTCATCAACGTGGGGGCACCCGCGGCTGGGATGAACGCGGCCGTACGCTCAGCTGTGCGCGTGGGCATTGCCGAC
GGCCACAGGATGCTCGCCATCTATGATGGCTTTGACGGCTTCGCCAAGGGCCAGATCAAAGAAATCGGCTGGACA
GATGTGCGGGGCTGGACCGGCCAAGGAGGCTCCATTCTTGGGACAAAACGCGTTCTCCCGGGGAAGTACTTGGA
GAGATCGCCACACAGATGCGCACGCACAGCATCAACGCGCTGCTGATCATCGGTGGATTTCGAGGCCTACCTGGGA
CTCCTGGAGCTGTCAGCCGCCCGGAGAAGCACGAGGAGTTCTGTGTCCCCATGGTCATGGTTCCCGCTACTGTG
TCCAACAATGTGCCGGGTTCCGATTTAGCATCGGGGCAGACACCGCCCTGAACACTATCACCGACACCTGCGAC
CGCATCAAGCAGTCCGCCAGCGGAACCAAGCGGCGGTGTTTCATCATCGAGACCATGGGCGGCTACTGTGGCTAC
CTGGCCAACATGGGGGGGCTCGCGGCCGAGCTGATGCCGCATACATTTTCGAAGAGCCCTTCGACATCAGGGAT
CTGCAGTCCAACGTGGAGCACCTGACGGAGAAAATGAAGACCACCATCCAGAGAGGCCTTGCTGCTCAGAAATGAG
AGCTGCAGTGAAGTACACCACCGACTTCATTTACCAGCTGTATTGAGAAGAGGGCAAAGGCGTGTGTTGACTGC
AGGAAGAACGTGCTGGGTACATGCAGCAGGGTGGGGCACCTCTCCATTGATAGAACTTTGGAACCAAAATC
TCTGCCAGAGCTATGGAGTGGATCACTGCAAACTCAAGGAGGCCCCGGGGCAGAGGAAAAAATTTACCACCGAT
GATTCCATTTGTGTGCTGGGAATAAGCAAAAGAAACGTTATTTTTCAACCTGTGGCAGAGCTGAAGAAGCAAACG
GATTTTGAGCACAGGATTCCCAAAGAACAGTGGTGGCTCAAGCTACGGCCCCCTCATGAAAATCCTGGCCAAGTAC
AAGGCCAGCTATGACGTGTCGGACTCAGGCCAGCTGGAACATGTGCAGCCCTGGAGTGTCTGAACCCAGTCCCGCC
TGATGTGCCTGCAGCCACCGTGGACTGTCTGTTTTGTAACACTTAAGTTATTTTATCAGCACTTTATGCACGT
ATTATTGACATTAATACCTAATCGGCGAGTGCCCATCTGCCCCACCAGCTCCAGTGCGTGCTGTCTGTGGAGTGT
GTCTCATGCTTTCAGATGTGCATATGAGCAGAATTAATTAA

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FIGURE 423

MDADDSRAPKGSRLRKFLEHLSGAGKAIGVLTSGGDAQGMNAAVRAVVRMGIYVGAKVYFIYEGYQGMVDGGSNIA
EADWESVSSILQVGGTIIGSARCQAFRTREGRLKAACNLLQRGITNLCVIGGDGSLTGANLFRKEWSGLLEELAR
NGQIDKEAVQKYAYLNVVGMVGSIDNDFCGTDMTIGTDSALHRIIEVVDAIMTTAQSHQRTFVLEVMGRHCGYLA
LVSALACGADWVFLPESPPEEGWEEQMCVKLSENRAKKRLNIIIVAEGAIDTQNKPIITSEKIKELVVTQLGYDT
RVTILGHVQRGGTPSAFDRILASRMGVEAVIALLEATPDTPACVVSLNGNHAVRLPLMECVQMTQDVQKAMDERR
FQDAVRLRGRSFAGNLNTYKRLAIKLPDDQIPKTNCNVAVINVGAPAAGMNAAVRSAVRVGIADGHRMLAIYDGF
DGFAKGQIKEIGWTDVGGWTGQGGSI LGTKRVLP GKYLEE IATQMRTHSINALLI IGGFEAYLG LLELSAAREKH
EEFCVPMVMVPATVSNNVPGSDFSIGADTALNTITDTCRIKQSASGTRRVFIIETMGGYCGYLANMGGLAAGA
DAAYIFEFPFDIRDLQSNVEHLTEKMKTTIQRGLVLRNESCSENYTTDFIYQLYSEEGKGVFDCRKNVLGHMQQG
GAPSPFDRNFGTKISARAMEWITAKLKEARGRGKKFTTDDSI CVLGISKRN VIFQPV AELKKQTD FEHRIPKEQW
WLKLRPLMKILAKYKASYDVSDSGQLEHVQPWSV

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FIGURE 424A

CGTCCGCGTGGGGGGGGTGTGTGCCCGCCTTGCGCATGCGTGTTCCTGGGCATGGCCGGCTCCGTTCCATCCTT
CTGCACAGGGTATCGCCTCTCTCCGTTTGGTACATCCCCTCCTCCCCACGCCCCGACTGGGGTGGTAGACGCGC
CTCCGCTCATCGCCCTCCCCATCGGTTTCCGCGCGAAAAGCCGGGGCGCCTGCGCTGCCGCCGCCGCGTCTGCT
GAAGCCTCCGAGATGCGCGCGCTACCGCCCCAGCCCGGTGCCACACTGGCCGTCCCGGCCATCTCGCTGCCC
GACGATGTCCGCAGGCGGCTCAAAGATTTGGAAAGAGACAGCTTAACAGAAAAGGAATGTGTGAAGGAGAAATTG
AATCTCTTGACGAATTTCTGCAAACAGAAATAAAGAATCAGTTATGTGACTTGGAACCAAATTACGTAAAGAA
GAATTATCCGAGGAGGGCTACCTGGCTAAAGTCAAATCCCTTTTAAATAAAGATTTGTCCTTGAGAACGGTGCT
CATGCTTACAACCGGAAGTGAATGGACGTCTAGAAAACGGGAACCAAGCAAGAAGTGAAGCCCGTAGAGTGCGA
ATGGCAGATGCCAACAGCCCCCACAACCCCTTTCCAAACCTCGCACGCCAGGAGGAGCAAGTCCGATGGAGAG
GCTAAGCCTGAACCTTACCTAGCCCCAGGATTAC AAGGAAAAGCACAGGCAAACCACCATCACATCTCATTTT
GCAAAGGGCCCTGCCAAACGGAACCTCAGGAAGAGTCTGAAAGAGCCAAATCGGATGAGTCCATCAAGGAAGAA
GACAAAGACCAGGATGAGAAGAGACGTAGAGTTACATCCAGAGAACGAGTTGCTAGACCGCTTCTGCAGAAGAA
CCTGAAAGAGCAAAATCAGGAACGCGCACTGAAAAGGAAGAAGAAAGAGATGAAAAAGAAGAAAAGAGACTCCGA
AGTCAAACCAAAGAACCAACACCCCAAACAGAACTGAAGGAGGAGCCGGACAGAGAAGCCAGGGCAGGCGTGCGAG
GCTGACGAGGACGAAGATGGAGACGAGAAAGATGAGAAGAAGCACAGAAGTCAACCCAAAGATCTAGCTGCCAAA
CGGAGGCCCGAAGAAAAAGAACCTGAAAAAGTAAATCCACAGATTTCTGATGAAAAAGACGAGGATGAAAAGGAG
GAGAAGAGACGCAAAACGACCCCAAAGAACCAACGGAGAAAAAAATGGCTCGCGCCAAAACAGTCATGAACTCC
AAGACCCACCTCCCAAGTGCATTCAGTGGGGCAGTACCTGGACGACCTGACCTCAAATATGGGCAGCACCCA
CCAGACGCGGTGGATGAGCCACAGATGCTGACAAATGAGAAGCTGTCCATCTTTGATGCCAACGAGTCTGGCTTT
GAGAGTTATGAGGCGCTTCCCCAGCACAACTGACCTGCTTCACTGTGTACTGTAAGCACGGTCACTGTGTCCC
ATCGACACCGGCTCATCGAGAAGAATATCGAACTCTTCTTTTCTGGTTTACGAAAACCAATCTATGATGATGAC
CCGTCTCTTGAAGGTGGTGTTAATGGCAAAATCTTGGCCCCATAAATGAATGGTGGATCACTGGCTTTGATGGA
GGTGAAAAGGCCCTCATCGGCTTCAGCACCTCATTGCCGAATACATTCTGATGGATCCAGTCCCGAGTATGCG
CCCATATTTGGGCTGATGCAGGAGAAGATCTACATCAGCAAGATTGTGGTGGAGTTCCTGCAGAGCAATTCCGAC
TCGACCTATGAGGACCTGATCAACAAGATCGAGAC CACGGTTCTCCTTCTGGCCTCAACTTGAACCGCTTCACA
GAGGACTCCCTCCTGCGACACGCGCAGTTTGTGGTGGAGCAGGTGGAGAGTTATGACGAGGCCGGGGACAGTGAT
GAGCAGCCCATCTTCTGACGCCCTGCATGCGGGACCTGATCAAGCTGGCTGGGGTCACGCTGGGACAGAGGCGA
GCCCAGGCGAGGCGGCAGACCATCAGGCATTCTAC CAGGGAGAAGGACAGGGGACCCACGAAAGCCACCACC
AAGCTGGTCTACCAGATCTTCGATACCTTCTTCGAGAGCAAATTGAAAAGGATGACAGAGAAGACAAGGAGAAC
GCCTTTAAGCGCCGGCGATGTGGCGTCTGTGAGGTGTGTACGAGCCTGAGTGTGGGAAATGTAAAGCCTGCAAG
GACATGGTTAAATTTGGTGGCAGTGACGGAGCAAGCAGGCTTGCCAAGAGCGGAGGTGTCCCAATATGGCCATG
AAGGAGGCAGATGACGATGAGGAAGTCGATGATAACATCCAGAGATGCCGTACCCAAAAAAATGCACCAGGGG
AAGAAGAAGAAACAGAACAAGAATCGCATCTCTTGGGTCGGAGAAGCCGTCAAGACTGATGGGAAGAAGAGTTAC
TATAAGAAGGTGTGCATTGATGCGGAAACCCTGGAAGTGGGGGACTGTGTCTCTGTTATTCCAGATGATTCTCA
AAACCGCTGTATCTAGCAAGGGTCACGGCGCTGTGGGAGGACAGCAGCAACGGGCAGATGTTTACGCCCCACTGG
TTCTGCGCTGGGACAGACACAGTCTCGGGGCCACGTGCGACCCTCTGGAGCTGTTCTTGGTGGATGAATGTGAG
GACATGCAGCTTTCATATATCCACAGCAAAGTGAAAGTCATCTACAAAGCCCCCTCCGAAAACCTGGGCCATGGAG
GGAGGCATGGATCCCGAGTCCCTGCTGGAGGGGGACGACGGGAAGACCTACTTCTACCAGCTGTGGTATGATCAA
GACTACGCGAGATTCGAGTCCCTCCAAAAACCCAGCCAACAGAGGACAACAAGTTCAAATTTCTGTGTGAGCTGT
GCCCCGTCTGGCTGAGATGAGGCAAAAAGAAATCCCAGGGTCTGGAGCAGCTCGAGGACCTGGATAGCCGGGTC
CTCTACTACTCAGCCACCAAGAACGGCATCCTGTACCGAGTTGGTGATGGTGTGTACCTGCCCCCTGAGGCCTTC
ACGTTCAACATCAAGCTGTCCAGTCCCGTGAAACGCCACGGAAGGAGCCCGTGATGAGGACCTGTACCCAGAG
CACTACCGGAAATACTCCGACTACATCAAAGGCAGCAACCTGGATGCCCTGAGCCCTACCGAATTGGCCGGATC
AAAGAGATCTTCTGTCCCAAGAAGAGCAACGGCAGGCCCAATGAGACTGACATCAAATCCGGGTCAACAAGTTC
TACAGGCCTGAGAACACCCACAAGTCCACTCCAGCGAGCTACCACGCAGACATCAACCTGCTCTACTGGAGCGAC
GAGGAGGCCGTGGTGGACTTCAAGGCTGTGCAGGGCCGCTGCACCGTGGAGTATGGGGAGGACCTGCCCGAGTGC
GTCCAGGTGTACTCCATGGGCGGCCCCAACCGCTTCTACTTCTCGAGGCCTATAATGCAAAGAGCAAAAGCTTT
GAAGATCCTCCCAACCATGCCCGTAGCCCTGGAACAAAGGGAAGGGCAAGGGAAAAGGGAAGGGCAAGCCCAAG

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FIGURE 424B

TCCCAAGCCTGTGAGCCGAGCGAGCCAGAGATAGAGATCAAGCTGCCCAAGCTGCGGACCCTGGATGTGTTTTCT
GGCTGCGGGGGGTTGTCGGAGGGATTCCACCAAGCAGGCATCTCTGACACGCTGTGGGCCATCGAGATGTGGGAC
CCTGCGGGCCAGGCGTTCCGGCTGAACAACCCCGGCTCCACAGTGTTTACAGAGGACTGCAACATCCTGCTGAAG
CTGGTCATGGCTGGGGAGACCACCAACTCCCGCGGCCAGCGGCTGCCCCAGAAGGGAGACGTGGAGATGCTGTGC
GGCGGGCCGCCCTGCCAGGGCTTCAGCGGCATGAACCGCTTCAATTCGCGCACCTACTCCAAGTTCAAAAACCTCT
CTGGTGGTTTCCTTCCTCAGCTACTGCGACTACTACCGGCCCGGTTCTTCCTCCTGGAGAATGTCAGGAACCTT
GTCTCCTTCAAGCGCTCCATGGTCCTGAAGCTCACCTCCGCTGCCTGGTCCGCATGGGCTATCAGTGCACCTTC
GGCGTGCTGCAGGCCGGTCAGTACGGCGTGGCCCAGACTAGGAGGCGGGCCATCATCCTGGCCGCGGGCCCTGGA
GAGAAGCTCCCTCTGTTCCCGGAGCCACTGCACGTGTTTGCTCCCCGGGCCTGCCAGCTGAGCGTGGTGGTGGAT
GACAAGAAGTTTGTGAGCAACATAACCAGGTTGAGCTCGGGTCCCTTTCCGGACCATCACGGTTCGAGACACGATG
TCCGACCTGCCGGAGGTGCGGAATGGAGCCTCGGCACCTGGAGATCTCCTACAACGGGGAGCCTCAGTCCCTGGTTC
CAGAGGCAGCTCCGGGGCGCACAGTACCAGCCCATCCTCAGGGACCACATCTGTAAGGACATGAGTGCATTGGTG
GCTGCCCCGATGCGGCACATCCCTTGGCCCCAGGGTCAGACTGGCGCGATCTGCCCAACATCGAGGTGCGGCTC
TCAGACGGCACCATGGCCAGGAAGCTGCGGTATACCCACCATGACAGGAAGAACGGCCGCAGCAGCTCTGGGGCC
CTCCGTGGGGTCTGCTCCTGCGTGGAAGCCGGCAAAGCCTGCGACCCCGCAGCCAGGCAGTTCAACACCCTCATC
CCCTGGTGCCTGCCCCACACCGGAACCGGCACAACCACTGGGCTGGCCTCTATGGAAGGCTCGAGTGGGACGGC
TTCTTCAGCACAACCGTCACCAACCCCGAGCCCATGGGCAAGCAGGGCCGCGTGCTCCACCCAGAGCAGCACCGT
GTGGTGAGCGTGCGGGAGTGTGCCCGCTCCAGGGCTTCCCTGACACCTACCGGCTCTTCGGCAACATCCTGGAC
AAGCACCGGCAGGTGGGCAATGCCGTGCCACCGCCCTGGCCAAAGCCATTGGCTTGGAGATCAAGCTTTGTATG
TTGGCCAAAGCCCGAGAGAGTGCTCAGCTAAAATAAAGGAGGAGGAAGCTGCTAAGGACTAGTCTGCCCTCCC
GTCACCCCTGTTTCTGGCACCAGGAATCCCCAACATGCACTGATGTTGTGTTTTTAACATGTCAATCTGTCCGTT
CACATGTGTGGTACATGGTGTGTTGTGGCCTTGGCTGACATGAAGCTGTTGTGTGAGGTTTCGCTTATCAACTAATG
ATTTAGTGATCAAATTGTGCAGTACTTTGTGCATTCTGGATTTTAAAGTTTTTTATTATGCATTATATCAAATC
TACCACTGTATGAGTGGAATTAAGACTTTATGTAGTTTTTATATGTTGTAATATTTCTTCAAATAAATCTCTCC
TATAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 425

MPARTAPARVPTLAVPAISLPDDVRRRLKDLERDSLTEKECVKEKLNLLHEFLQTEIKNQLCDLETKLRKEELSE
EGYLAKVKSLLNKDLSLENGAHAYNREVNRLNENQARSEARRVGMADANSPPKPLSKPRTPRRSKSDGEAKPE
PSPSPRITRKSTRQTTITSHFAKGPAPKRPQEESERAKSDESIKEEDKDQDEKRRRVTSRERVARPLPAEPEPERA
KSGTRTEKEEERDEKEEKRLRSQTKEPTPKQKLKEEPPDREARAGVQADEDEDGDEKDEKKHRSQPKDLAAKRRPE
EKEPEKVNQISDEKDEDEKEEKRRKTTTPKEPTEKKMARAKTVMNSKTHPPKCIQCGQYLDLDDPDLKYGQHPPDAV
DEPQMLTNEKLSIFDANESGFESYEALPQHKLTCFSVYCKHGHLCPIDTGLIEKNIELFFSGSAPKIYDDDDPSLE
GGVNGKNLGPINEWITGFDGGEKALIGFSTSFAYEYILMDPSPEYAPIFGLMQEKIYISKIVVEFLQSNSDSTYE
DLINKIETTVPSSGLNLRFTEDSLLRHAQFVVEQVESYDEAGDSDEQPIFLTPCMRLIKLAGVILGQRRARAR
RQTIRHSTREKDRGPTKATTTKLQYQIFDTFFAEQIEKDDREDKENAFKRRRCGVCEVCQQPECGKCKACKDMVK
FGGSGRSKQACQERRCPNMAMKEADDDEEVDNIPEMPSPKKMHQGGKKKKQKNRISWVGEAVKTDGKKSYYKKV
CIDAETLEVGDVSVIPDDSSKPLYLARVTALWEDSSNGQMFHAHWFCAGTDTVLGATSDPLELFLVDECEDMQL
SYIHSKVVIYKAPSENWAMEGGMDPESLLEGDDGKTYFYQLWYDQDYARFESPPKTQPTEDNKFKFCVSCARLA
EMRQKEIPRVLEQLEDLSRVLYYSATKNGILYRVGDGVYLPPEAFTFNILSSPVKRPKEPVDEDLYPEHYRK
YSDYIKGSNLDAPEPYRIGRIKEIFCPKKSNGRPNETDIKIRVNKFYRPENTHKSTPASYHADINLLYWSDEEAV
VDFKAVQGRCTVEYGEDLPECVQVYSMGGPNRFYFLEAYNAKSKSFEDPPNHARSPGNKGKGGKGGKPKSQAC
EPSEPEIEIKLPKLRTLDVFSGCGGLSEGFHQAGISDTLWAIEMWDPAQAFLNNPGSTVFTEDCNILLKLVA
GETTNSRGQRLPQKGDVEMLCGGPPCQGFSGMNRFNSTYSKFKNSLVVSFLSYCDYRPRFFLLENVRNFVSFK
RSMVLKLTLRCLVRMGYQCTFGVLQAGQYGAQTRRRRAIILAAAPGEKLPFPPEPLHVFAPRACQLSVVVDKKF
VSNITRLSSGPFRTITVRDTMSDLPEVRNGASALEISYNGEPQSWFQRLRGAQYQFILRDHICKDMSALVAARM
RHIPLAPGSDWRDLPNIEVRLSDGTMARKLRYTHDRKNRSGSSGALRGVCSCVEAGKACDPAARQFNTLIPWCL
PHTGNRHHNWAGLYGRLEWDGFFSTTVTNPEPMGKQGRVLHPEQHRVSVRECARSQGFDPDYRLFGNILDKHRQ
VGNAVPPPLAKAIGLEIKLCMLAKARESASAKIKEEEAAKD

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FIGURE 426

CGGACGCGTGGGGCCCGGGGGGCTGAGGCGCCCGCGCCTGCCGCGGGGGCCGCTCGCGTCCTCC**ATGG**AGGCCG
GAGAGGAACCGCTGCTGCTGGCCGAACCTCAAGCCCGGGCGCCCCACCAGTTTGATTGGAAGTCCAGCTGTGAAA
CCTGGAGCGTCGCCTTCTCCCCAGATGGCTCCTGGTTTGCTTGGTCTCAAGGACACTGCATCGTCAAACCTGATCC
CCTGGCCGTTGGAGGAGCAGTTTCATCCCTAAAGGGTTTGAAGCCAAAAGCCGAAGTAGCAAAAATGAGACGAAAG
GGCGGGGCAGCCCCAAAAGAGAAGACGCTGGACTGTGGTCAGATTGTCTGGGGGCTGGCCTTCAGCCCCGTGGCCTT
CCCCACCCAGCAGGAAGCTCTGGGCACGCCACCACCCCCAAGTGCCCGATGTCTCTTGCTGGTTCTTGCTACGG
GACTCAACGATGGGCAGATCAAGATCTGGGAGGTGCAGACAGGGCTCCTGCTTTTGAACTCTTCCGGCCACCAAG
ATGTCGTGAGAGATCTGAGCTTCACACCCAGTGGCAGTTTGATTTTGGTCTCCGCGTCACGGGATAAGACTCTTC
GCATCTGGGACCTGAATAAACACGGTAAACAGATTCAAGTGTTATCGGGCCACCTGCAGTGGGTTTACTGCTGTT
CCATCTCCCCAGACTGCAGCATGCTGTGCTCTGCAGCTGGAGAGAAGTCGGTCTTCTATGGAGCATGAGGTCTT
ACACGTTAATTCGGAAGCTAGAGGGCCATCAAAGCAGTGTTGTCTCTTGACTTCTCCCCGACTCTGCCCTGC
TTGTACGGCTTCTTACGATACCAATGTGATTATGTGGACCCCTACACCGGCGAAAGGCTGAGGTCACTCCACC
ACACCCAGGTTGACCCCGCCATGGATGACAGTGACGTCCACATTAGCTCACTGAGATCTGTGTGCTTCTCTCCAG
AAGGCTTGACCTTGCCACGGTGGCAGATGACAGACTCCTCAGGATCTGGGCCCTGGAAGTGAAGTCCCATTTG
CATTTGCTCCTATGACCAATGGGCTTTGCTGCACATTTTTTCCACATGGTGGAGTCATTGCCACAGGGACAAGAG
ATGGCCACGTCCAGTTCTGGACAGCTCCTAGGGTCTGTCTCACTGAAGCACTTATGCCGGAAGGCCCTTCGAA
GTTTCCTAACAACCTTACCAAGTCTTAGCACTGCCAATCCCCAAGAAAATGAAAGAGTTCCTCACATACAGGACTT
TT**TAA**GCAACACCACATCTTGCTTCTTTGTAGCAGGGTAAATCGTCCTGTCAAAGGGAGTTGCTGGAATAATG
GGCCAAACATCTGGTCTTGCAATTGAAATAGCATTTCTTTGGGATTGTGAATAGAATGTAGCAAAACCAGATTCCA
GTGTACTAGTCATGGATCTTTCTCTCCCTGGCATGTGAAAGTCAGTCTTAGAGGAAGAGATTCCACTTGCACGGC
AACAGAGCCTTACGTTAAATTTTTCAGTCCAGTTATGAACAGCAAGTGTTGAACTCTTCTGCTTGTTTTGATTCA
AAGTGCAGTTACTGATGTTGTTTTGATTATGCAACTAAGTAGGCCTCCAGAGCCTCTCTAGTGGCAGAGCAGCTC
ACACTCCCTCCGCTGGGAACGATGGCTTCTGCCTAGTACCTATCCTTGTTTCTGATGCAGTGGTAGCATTGGT
TCAAGTTCTCTCCTGCTGTGGTCAGAGTTGCTTCGATGTTGGCCAAGTGCTTTTCTTCTTGCGCTCCCTTCTGAC
CTGCAGGACAGTTTTCTGGAGCCATTGGGTATGAGGTATTAATTTAGCTTAACTAAATTACAGGGGACTCAGAG
GCCGTGCTCCTGACCGATCCAGACACTATTACGGCTTTTTTTTTTTTTTAAACAATGGTGTGCATGTGCAGGAAA
TGACAAATTTGTATGTCAGATTATACAAGGATGTATTCTTAAACCGCATGACTATTGATGGCTACTGAGTTAT
CAGTGGCCATTTATTAGCATCATATTTATTTGATTTTCTCAACAGATGTTAAGGTACAACCTGTGTTTTTCTCGA
TTATCTAAAAACCATAGTACTTAAATTGAACAGTTGCAAAGATGTCTTAATTGTGTAAAGAATTGGTGTAGTCAT
GACTTTAGCTGATACTCTTATGTACGAGATCTGTCTCTGCTGTTTAACTTCATTGGATTAAATCAGCTGGTTTCAA
CTCTACTGCGAAACAAAAATAGCTCCTTAAAGTACTGTTCTCCTTCAGTGGCATGTAGTTATCTAATCAAGACA
CCTCATTCAAACAAAACCTGCCTTAGGAAAATTTAATATATTTTAAATTATTTTAAAGAAATACAACATCTTAT
TCTTTAGCTTTCTTAATCGGTGCTTTATGGAGGCCAGTGTAACGTTACATGACTCGTTGAGAAAGTTGAGGAATT
TCCTCTACCACCTTTGTTGCTTGAAGAAAAACATGTCTTTTCAAATGAGAGGCTTTCATTGAAGAAAAGAAAAA
AACAACAGTTAAA

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FIGURE 427

MEAGEEPLLLAELKPGRPHQFDWKSSCETWSVAFSPDGSWFAWSQGHCIIVKLIPWPLEEQFIPKGFEAKSRSSKN
ETKGRGSPKEKTLDCGQIVWGLAFSPWPSPPSRKLWARHHPQVPDVSLVLATGLNDGQIKIWEVQTGLLLLNLNLS
GHQDVVRDLSTPSGSLILVSASRDKTLRIWDLNKHGKQIQVLSGHLQWVYCCSISPDCSMLCSAAGEKSVFLWS
MRSYTLIRKLEGHQSSVSCDFSPDSALLVTASYDTNVIMWDPYTGERLRSLHHTQVDPAMDDSDVHISLRSVC
FSPEGLYLATVADDRLLRIWALELKTPIAFAPMTNGLCCTFFPHGGVIATGTRDGHVQFWTAPRVLSSLKHLCKR
ALRSFLTTYQVLALPIPKKMKEFLTYRTF

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FIGURE 428

AGAGCCGCCAGCGA.3GCTGGGGATCGGGGCGCCGCTGCTCTCTCCCGGCTGGGGAGCCGGGGCTGCCGGCCGGCG
CTGGTGGATGCTGCTGGCGCCCCTGCTGCCGGCGCTGCTGCTGGTGCGGGCCGCGGGGGCCCTGGTGGAGGGGCT
CTACTGCGGCACGCGGGACTGCTACGAGGTGCTGGGCGTGAGCCGCTCGGCGGGCAAGGCGGAGATCGCGCGGGC
CTACCGCCAGCTGGCCCGGCGCTACCACCTGACCGCTACCGGCCCCAGCCCGGAGACGAGGGCCCCGGGCGGAC
GCCGCAGAGCGCCGAGGAGGCTTTCCTGCTGGTGGCAACCGCTACGAGACACTCAAGGTCTCTCAGGCAGCTGC
AGAGCTTCAACAGTACTGTATGCAGAATGCCTGCAAGGATGCCCTGCTGGTGGGTGTTCCAGCTGGAAGTAACCC
CTTCCGGGAGCCTAGATCCTGTGCTTTACTCTGAAGACTCGAGAGAAGTTTGCTGAGGAATGCCTTCAAGCACAA
AGTGATGAATGACTGCCTTCAAGTCTCAAGAAAACACTTTCCCTAACTTTTAGAGATATTTAGCCCTTTCTCTG
TGGCCTGGTCTATAGCCAAAATCACAGATATTCATGAGTTTCTACTTGAGTGAGAAAACCTGGGTGAAGGAATAG
AATTTTAAATAGTAATAACTGCTTGTTTTTTTTGTGCAAGTACTTTTATACATAAGATAAAACAAAACCTTACCA
CCAAACATACCAAATGCACCTCTTTCATAAGTGAGTTACTAAGATTTCTATACCTGGAATATCATGTATGTTTC
ATTTACTGGATGTTTACATTTTAGGAAGGAAAATAGTTTTGTTTATTTAAACAACCTGAATACTTATAAACTGTTG
TTCCTGGAAGTTATTTATTCATAAAAAATTTGTTCTTTTGTGATGAATTTATAATTCCTAAATGAAGACCAGAA
AGTACAAATTGCTGGGAGGAAGAATAGGCTTTATTAATCAACTGATGTCTTGATTTTCTAAATGGGAAGATTGC
TTTATTTTAACTAATTATGGGAGCAGATTCTTAGCAAACCTCTTGGAAAAGTTAATGTTATGATGTGCATT
AGGCTGCCCCATCGTGTATATAAATGAAGCAGATTTGATTTTGTATTCTTACGTTTCTCTGCTTTGTAGTTGTG
GCTGTACTTAAAGAAATACAGAATTTTATATATTTAAAAATGTTTAAATGTGACCCACAGAACATTGTAAATGA
TTAAAACTAACATGAAAATATTACAACCTAAAAGAATTCTTAACCTCACAAAGTGTTTTACTTCGACGATGTGCC
TTTGATTTAATTTGGGACACTTTTTTAGAAGGATACATTATTCGTGTTTGCAACGGTCTTTGAAGAGCTTGAAA
TAAAATTTCTGCTTAATTAATCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 429

MGAPLLSPGWGAGAAGRWWMLLAPLLPALLLVRPAGALVEGLYCGTRDCYEVLGVSR
SAGKAEIARAYRQLARR
YHPDRYRPQPGDEGPGRTPQSAEEAFLLVATAYETLKVSQAAAEQQYCMQNACKDALLV
GVPA GSNPFREPRSC
ALL

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FIGURE 430

AGAGCGGAGGCCGCACTCCAGCACTGCGCAGGGACCGCCTTGGACCGCAGTTGCCGGCCAGGAATCCCAGTGTCA
CGGTGGACACGCCTCCCTCGCGCCCTTGCCGCCACCTGCTCACCCAGCTCAGGGGCTTTGGAATTCTGTGGCCA
CACTGCGAGGAGATCGGTTCTGGGTTCGGAGGCTACAGGAAGACTCCCACTCCCTGAAATCTGGAGTGAAGAACGC
CGCCATCCAGCCACCATTCGAAGGAGGTGCAGGAGAAGAGCTCTGTGATACCATTAACTTGTGACATTACTTT
TATTTGAAGGAACGTATATTAGAGCTTACTTTGCAAAGAAGGAAGATGGTTGTTTCCGAAGTGGACATCGCAAAA
GCTGATCCAGCTGCTGCATCCCACCCTCTATTACTGAATGGAGATGCTACTGTGGCCAGAAAAATCCAGGCTCG
GTGGCTGAGAAACAACCTGTGCAGCCAGTATGAGGAGAAGGTGCGCCCTGCATCGACCTCATTGACTCCCTGCGG
GCTCTAGGTGTGGAGCAGGACCTGGCCCTGCCAGCCATCGCCGTCATCGGGGACCAGAGCTCGGGCAAGAGCTCC
GTGTTGGAGGCACTGTGAGGAGTTGCCCTTCCAGAGGCAGCGGGATCGTGACCAGATGCCCGCTGGTGCTGAAA
CTGAAGAACTTGTGAACGAAGATAAGTGGAGAGGCAAGGTCAGTTACCAGGACTACGAGATTGAGATTTGGAT
GCTTCAGAGGTAGAAAAGGAAATTAATAAAGCCCAGAATGCCATCGCCGGGAAGGAATGGGAATCAGTCATGAG
CTAATCACCCCTGGAGATCAGCTCCCGAGATGTCCGGATCTGACTCTAATAGACCTTCCTGGCATAACCAGAGTG
GCTGTGGGCAATCAGCCTGCTGACATTGGGTATAAGATCAAGACACTCATCAAGAAGTACATCCAGAGGCAGGAG
ACAATCAGCCTGGTGGTGGTCCCCAGTAATGTGGACATCGCCACCACAGAGGCTCTCAGCATGGCCCAGGAGGTG
GACCCCGAGGGAGACAGGACCATCGGAATCTTGACGAAGCCTGATCTGGTGGACAAAGGAAGTGAAGACAAGGTT
GTGGACGTGGTGGGAACCTCGTGTTCACCTGAAGAAGGGTTACATGATTGTCAAGTGCCGGGGCCAGCAGGAG
ATCCAGGACCAGCTGAGCCTGTCCGAAGCCCTGCAGAGAGAGAAGATCTTCTTTGAGAACCACCCATATTTAGG
GATCTGCTGGAGGAAGGAAAGGCCACGGTTCCCTGCCTGGCAGAAAACTTACCAGCGAGCTCATCACACATATC
TGTAATCTCTGCCCCGTGTAGAAAATCAAATCAAGGAGACTCACAGAGAATAACAGAGGAGCTACAAAAGTAT
GGTGTGACATAACCGGAAGACGAAAATGAAAAATGTTCTTCTGATAGATAAAATTAATGCCTTTAATCAGGAC
ATCACTGCTCTCATGCAAGGAGAGGAACTGTAGGGGAGGAAGACATTGCGCTGTTTACCAGACTCCGACACGAG
TTCCACAAATGGAGTACAATAATTGAAAACAATTTTCAAGAAGGCCATAAAATTTTGAGTAGAAAAATCCAGAAA
TTTGAAAATCAGTATCGTGGTAGAGAGCTGCCAGGCTTTGTGAATTACAGGACATTTGAGACAATCGTGAAACAG
CAAATCAAGGCACTGGAAGAGCCGGCTGTGGATATGCTACACACCGTGACGGATATGGTCCGGCTTGCTTTCACA
GATGTTTTGATAAAAAATTTTGAAGAGTTTTTTAACCTCCACAGAACCGCCAAGTCCAAAATTGAAGACATTAGA
GCAGAACAAGAGAGAGAAGGTGAGAAGCTGATCCGCCTCCACTTCCAGATGGAACAGATTGTCTACTGCCAGGAC
CAGGTATACAGGGGTGCATTGCAGAAGGTGAGAGAGAAGGAGCTGGAAGAAGAAAAAGAAAGAAATCCTGGGAT
TTTGGGGCTTTCCAGTCCAGCTCGGCAACAGACTCTTCCATGGAGGAGATCTTTCAGCACCTGATGGCCTATCAC
CAGGAGGCCAGCAAGCGCATCTCCAGCCACATCCCTTTGATCATCCAGTTCTTTCATGCTCCAGACGTACGGCCAG
CAGCTTCAGAAGGCCATGCTGCAGCTCCTGCAGGACAAGGACACCTACAGCTGGCTCCTGAAGGAGCGGAGCGAC
ACCAGCGACAAGCGGAAGTTTCTGAAGGAGCGGCTTGCACGGCTGACGCAGGCTCGGCGCCGGCTTGCCAGTTC
CCCGGTTAACACACTCTGTCCAGCCCCGTAGACGTGCACGCACACTGTCTGCCCCCGTTCCCGGGTAGCCACTG
GACTGACGACTTGAGTGCTCAGTAGTCAGACTGGATAGTCCGTCTCTGCTTATCCGTTAGCCGTGGTGATTTAGC
AGGAAGCTGTGAGAGCAGTTTGGTTTCTAGCATGAAGACAGAGCCCCACCCTCAGATGCACATGAGCTGGCGGGA
TTGAAGGATGCTGTCTTCGTACTGGGAAAGGATTTTACGCCCTCAGAATCGCTCCACCTTGCAGCTCTCCCTT
CTCTGTATTCTAGAACTGACACATGCTGAACATCACAGCTTATTTCTCTCATTTTATAATGTCCCTTCACAAA
CCCAGTGTTTTAGGAGCATGAGTGCCGTGTGTGCGTCTGTGCGAGCCCTGTCTCTCTCTGTAATAAACT
CATTTCTAGCAG

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FIGURE 431

MVVSEVDIAKADPAAASHPLLLNGDATVAQKNPGSVAENNLCSQYEEKVRPCIDLIDSLRALGVEQDLALPAIAV
IGDQSSGKSSVLEALSGVALPRGSGIVTRCPLVLKLLKLVNEDKWRGKVSQDYIEIEISDASEVEKEINKAQNAI
AGEGMGISHELITLEISSRDVPDLTLIDLPGITRVAVGNQPADIGYKIKTLIKKYIQRQETISLVVVP SNVDIAT
TEALSMAQEVDPEDRTIGILTKPDLVDKGTEDEKVVVDVVRNLVFHLKKGVMIVKCRGQQEIQDQLSLSEALQREK
IFFENHPYFRDLLEEGKATVPCLA EKLTSELITHICKSLPLENQIKETHQRITEELQKYGVDIPEDENEKMFLL
IDKINAFNQDITALMQGEETVGEEDIRLFTRLRHEFH KWSTIIENNFQEGHKILSRKIQKFENQYRGRELPGFVN
YRTFETIVKQQIKALEEPAVDMLHTVTD MVRLAFTDVS IKNFEEFFNLHRTAKSKIEDIRAEQEREGEKLIRLHF
QMEQIVYCQDQVYRGALQKVREKELEEEKKKKS WDFGAFQSSSATDSSMEEIFQHLMAYHQEASKRISSHIPLI I
QFFMLQTYGQQLQKAMLQLLQDKDTYSWLLKERSDTSDKRKFLKERLARLTQARRRLAQFPG

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FIGURE 432

CCGCAGCCGCCGCCGCCGCCGCCGCCGCGATGTGACCTTCAGGGCCGCCAGGACGGGATGACCGGAGCCTCCGCC
CCGCGGCGCCCCGCTCGCCTCGGCCTCCCGGGCGCTCTGACCGCGCGTCCCCGGCCGCCATGGCCCTTCGCTCT
CGCCCCGGGCCCCGCCGCCCTGCGCCGCGCGCCGAGCTGCTGCTGCTGCTGCTGGCCGCGGAGTGCGCGCTTGCCG
CGCTGTTGCCGGCGCGCGAGGCCACGCAGTTCTGCGGCCAGGCAGCGCCGCGCCTTTTCAGGTCTTCGAGGAGG
CCAAGCAGGGCCACCTGGAGAGGGAGTGCGTGAGGAGCTGTGACGCCGCGAGGAGGCGGGGAGGTGTTGAGA
ACGACCCCGAGACGGATTATTTTTACCCAAGATACTTAGACTGCATCAACAAGTATGGGTCTCCGTACACCAAAA
ACTCAGGCTTCGCCACCTGCGTGCAAACCTGCCTGACCAGTGACGCCCAACCCCTGCGATAGGAAGGGGACCC
AAGCCTGCCAGGACCTCATGGGCACTTCTTCTGCTGTGTAAAGCTGGCTGGGGGGGCGGCTCTGCGACAAAG
ATGTCAACGAATGCAGCCAGGAGAACGGGGCTGCCTCCAGATCTGCCACAACAAGCCGGGTAGCTTCCACTGTT
CCTGCCACAGCGGCTTCGAGCTCTCCTCTGATGGCAGGACCTGCCAAGACATAGACGAGTGCGCAGACTCGGAGG
CCTGCGGGGAGGCGCGCTGCAAGAACCTGCCCGGCTCCTACTCCTGCCTCTGTGACGAGGGCTTTGCGTACAGCT
CCCAGGAGAAGGCTTGCCGAGATGTGGACGAGTGTCTGACGGGCCGCTGTGAGCAGGTCTGCGTGAACCTCCCAG
GGAGCTACACCTGCCACTGTGACGGGCGTGGGGGCTCAAGCTGTCCAGGACATGGACACCTGTGAGGACATCT
TGCCGTGCGTGCCCTTCAGCGTGGCCAAGAGTGTGAAGTCCTTGACCTGGGCGCGATGTTTCAGTGGGACCCCCG
TGATCCGACTGCGCTTCAAGAGGCTGCAGCCCACCAGGCTGGTAGCTGAGTTTGACTTCCGGACCTTTGACCCCG
AGGGCATCCTCCTCTTTGCCGGAGGCCACCAGGACAGCACCTGGATCGTGCTGGCCCTGAGAGCCGGCCGGCTGG
AGCTGCAGCTGCGCTACAACGGTGTGCGCCGTGTACCAGCAGCGGCCCGGTCATCAACCATGGCATGTGGCAGA
CAATCTCTGTTGAGGAGCTGGCGCGGAATCTGGTCATCAAGGTCAACAGGGATGCTGTTCATGAAAATCGCGGTGG
CCGGGGACTTGTTCCAACCGGAGCGAGGACTGTATCATCTGAACCTGACCGTGGGAGGTATTCCCTTCCATGAGA
AGGACCTCGTGAGCCTATAAACCCCTCGTCTGGATGGCTGCATGAGGAGCTGGAACCTGGCTGAACGGAGAAGACA
CCACCATCCAGGAAACGGTGAAAGTGAACACGAGGATGCAGTGCTTCTCGGTGACGGAGAGAGGCTCTTTCTACC
CCGGGAGCGGCTTCGCCTTCTACAGCCTGGACTACATGCGGACCCCTCTGGACGTCGGGACTGAATCAACCTGGG
AAGTAGAAGTCGTGGCTCACATCCGCCAGCCGACAGACAGGCGTGCTGTTTGCCTCTGGGCCCCGACCTCC
GTGCCGTGCCTCTCTCTGTGGCACTGGTAGACTATCACTCCACGAAGAACTCAAGAAGCAGCTGGTGGTCCTGG
CCGTGGAGCATAACGGCCTTGCCCTAATGGAGATCAAGGTCTGCGACGGCCAAGAGCACGTGGTCACCGTCTCGC
TGAGGGACGGTGAGGCCACCTGGAGGTGGACGGCACCAGGGGCCAGAGCGAGGTGAGCGCCGCGCAGCTGCAGG
AGAGGCTGGCCGTGCTCGAGAGGCACCTGCGGAGCCCCGTGCTACCTTTGCTGGCGGCTGCCAGATGTGCCGG
TGACTTCAGCGCCAGTCACCGCTTCTACCGGGCTGCATGACACTGGAGGTCAACCGGAGGCTGCTGGACCTGG
ACGAGGCGGCGTACAAGCACAGCGACATCACGGCCACTCTGCCCCCGTGGAGCCCGCCGACGCTTAGGCC
CCACGGGACGCGGCAGGCTTCTCAGTCTCTGTCCGAGACAGCCGGGAGGAGCCTGGGGGCTCTCACCACGTGGG
GCCATGCTGAGAGCTGGGCTTTCCTCTGTGACCATCCGGCCTGTAAACATATCTGTAAATAGTGAGATGGACTTG
GGCCCTCTGACGCCGCGCACTCAGCCGTGGGCCGGGCGCGGGGAGGCCGGCGCAGCGAGAGCGGGCTCGAAGA
AAATAATTCTCTATTATTTTATTACCAAGCGCTTCTTCTGACTCTAAAATATGGAAAAT

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FIGURE 433

MAPSLSPGPAALRRAPQLLLLLLAAECALAALLPAREATQFLRPRQRRAFQVFEEAKQGHLERECVEELCSREEA
REVFENDPETDYFYPRYLDCINKYGSPYTKNSGFATCVQNLPDQCTPNPCDRKGTQACQDLMGNFFCLCKAGWGG
RLCDKDVNECSQENGGLQICHNKPGSFHCSCHSGFELSSDGRTCDIDECADSEACGEARCKNLPGSYSCLCDE
GFAYSSQEKACRDVDECLQGRCEQVCVNSPGSYTCHCDGRGGLKLSQDMDTCEDILPCVPFVAKSVKSLYLGRM
FSGTPVIRLRFKRLQPTRLVAEFDFTFDPEGILLFAGGHQDSTWIVLALRAGRLELQLRYNGVGRVTSSGPVIN
HGMWQTISVEELARNLVIKVNRDAVMKIAVAGDLFQPERGLYHLNLTVGGIPFHEKDLVQPINPRLDGCMRSWNW
LNGEDTTIQETVKVNTRMQCFSVTERGSFYPGSGFAFYSLDYMRTPLDVGTESTWEVEVVAHIRPAADTGVLFFAL
WAPDLRAVPLSVALVDYHSTKKLKKQLVVLAVEHTALALMEIKVCDGQEHVVTVSLRDGEATLEVDGTRGQSEVS
AAQLQERLAVLERHLRSPVLTFAAGGLPDVPVTSAPVTAFYRGCMTELVNRRLLDLDEAAYKHSDITAHSCPPVEP
AAA

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FIGURE 434

CGGTGGTATCGGCC3CAGCTGTGAGGGGGTTCCGGGAAGATGGTGCTGATCAAGGAATTCCGTGTGGTTTTGCCA
TGTTCTGTTTCAGGAGTATCAGGTTGGGCAGCTTTACTCTGTTGCAGAAGCTAGTAAGAATGAGACTGGTGGTGGA
GAAGGAATTGAAGTCTTAAAGAATGAACCTTATGAGAAGGATGGAGAAAAGGGACAGTATACGCACAAAATTTAT
CACCTAAAGAGCAAAGTGCCTGCATTTCGTGAGGATGATTGCTCCCGAGGGCTCCTTGGTGTTCATGAGAAAGCC
TGGAATGCGTACCCCTACTGTAGAACAATTGTAACGAATGAATATATGAAAGATGATTTCTTCATTAAAATCGAA
ACATGGCACAACCAGACTTGGGAACATTAGAAAA GTACATGGTTTTAGATCCAAACACATGGAAGAACTGTTGAA
ATTGTCCATATAGATATTGCAGATAGAAGTCAAGTGAACCAGCAGACTACAAAGCTGATGAAGACCCAGCATT
TTCCAGTCAGTCAAGACCAAGAGAGGCCCTTTGGGACCCAACCTGGAAGAAGGAGCTGGCAAACAGCCCTGACTGT
CCCCAGATGTGTGCCTATAAGCTGGTGACCATCAAATTCAGTGGTGGGGACTGCAAAGCAAAGTAGAAAACCTTC
ATTCAAAGCAAGAAAAACGGATATTTACAAACTTCCATCGCCAGCTTTTTTGTGGATTGACAAGTGGATCGAT
CTCACGATGGAAGACATTAGGAGAATGGAAGACGAGACTCAGAAAGAACTAGAAACAATGCGTAAGAGGGGTTCC
GTCGAGGCACGTGGCTGCTGATGTC TAGATGAGTCCCTGTAGGGTCAGAGACAATGTCAAACCTGTTTACGTA
ATCAAGGTCAAGTGAGGGGAACAAGCGCAGCCAGTGATGAGTGAAGAAGAATCTGACCAGTATCTTGAGTGTG
ACGTTTCCCAGATGTGTGCTTGTGATGATACACACACATGCACAGTTCTCAACCACGTGTGTATATATGTATGT
GTGCATATGTCTGTAGCTGTATATAAAGCGCATGTAGAGCTACAGATCCAGATACACACACTTGTGTATATATGT
ACATACAGACATACTGAAGGGATTAGTACAATTTCTCCAAAGTACTGTACCTATCTTCAGCAAGAATGCAAAAGA
AAATATTTTCAATATATATACCTGGAACAGATTTTAAATAATTATCAGAGTAATACCATTAATGGACAAATTGACT
GCAATGTAATACTAGCTGGTATGTTTCATAAATGTCAAGCTGTGGACCAACATATATAGCCTTTTTATTATTTTTTCT
TCTTCTTTTAAAGTCAGTCTGTTATAAATTTTTTTTTTAGTCCCATAAGCAGTAGACTCCCACAGAAAATTTCTTCA
AAATTTTTTGGTGTTCGAATCTGGGATGTAAACTCTGAATGTATTTATAACTATTTATTTCTGGATGGTCA
TTATCTTGTAGCCAAATTTGACAATATAAAGTAAGGAGCAAAGTTACAGGCCAGTTTTTACTTGTTTGCCCTGAG
GGAAAAATCCTTTTTAAAAAAATTTCTGGTTTTTA TTGGATTTTTGTATTTTAAATTTCAAATATTTTCTACAT
CAAACCTAGCAAAAATGGAGATGACGGTTTTCTGATTTATAATAAAATACTAGACAGTTTTTCAGGCTCCTGTTAGAC
AAACACATTGATGAAGAAATTAGTCTTAATAGGATTGTAGGCTGTGTAGAAAAGTTGGAATATAGCACTTCATG
GAGTCTTGTTTTGAAGATGACAGTTTTCTGTAACCTACAGCTTGGAACCTATGCAAATGGTCTAGATTCCTCAGAG
CTCACATGATAGGATATAGTTAGTGATGACATTTTGCTCTTCTGTGGGAACACACACTTCAAGGAGGAGATAGT
GACTTTGAGATAGGAACAGTTTAAAGATGCAGTGTGAGTCTGGCCTGCGTGCGGTGAGGAGGCCCGCCAAGAGAC
TGGTGGACATCTGACTGTGGGATGTGCTCTCAAGTAGGACGTATCAGGACAGATTCTGAATAGGCATCATGAGA
GTGCTGGTCAGAAACGGCTGCCACTTTTTTTAATTAAATTTATTTTATTTTAAAGGAAGGAACAATAGCTAGG
TAAGATTTTTATCAGCTTTCTCTGTCTGAATCCAGTTTTCTCTGTGTCAGTCTGGAAGCTTGAATAGAATTATA
TTGTTGAAGCCTTCAGGTCACAACTGTCTTTTGTAACTCTGTCCCTCCTAAACACGCCAACCCTGCAGTC
AAATCACATTAGTAATCTGATTTGCTGACAGTCTGCCCTGCCTGCTCCTCGTTTTCCACATGTCCTGCATCCC
TCCCCACTGGAGTGATTTCAGTGAATCAGACAAGGAAGGATGTGTAGGATCACTACTGCATTGCAATACCCTGT
TATCCTCAGCAACAAAACCCACATTTTATACATCC TTTGTGTACTCAGGATAAAGACTGATGTTTACTCTCTGGG
CACTGTTGTAAGATAGGTTTTGTCAGAGCATAATCATTGTCTGCAAAGTGTGTTGGTGGCAGGAAGATTATTGCTA
ATTTTGTGAAATAAAGAGTCTAGCCCTCTCCTTTTAAATGAACTTAACTCTCGCTGGCATCTGTAGTATCATTGGG
AGCTTAGGCGCACATGGAAATGAGAGCCCGGCGCATGGATTTTAAATGTTTTTCTAACAACCTGTGGAGATTTGAGG
GAATGTGTGGTGAATGTAAATACCTAGTTTACTTGCCAGTCTCTTGTGTAAATTACAGTAAACAAAGTAAATG
AAATTTAAACAAAAAATAAATTTGATCACAATGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 435

MVLIKEFRVVLPCSVQEYQVGQLYSVAEASKNETGGGEGIEVLKNEPYEKDGEKGQYTHKIYHLKSKVPAFVRMI
APEGSLVFHEKAWNAYPYCRTIVTNEYMKDDFFIKIETWHKPDLTENVHGLDPNTWKTVEIVHIDIADRSQVE
PADYKADEDPALFQSVKTKRGPLGPNWKKELANSPDCPQMCAVKLVTIKFKWWGLQSKVENFIQKQEKRIFTNFH
RQLFCWIDKWIDLTMEDIRMEDETQKELETMRKRGSVRGTSADV

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FIGURE 436A

CAGACGGAAGCCGAACGAGTTCTCTCGGCGGCTGCAGGATCGGGGGACTCCAAAGTGAAAGTGGCGGTGCGGATACG
ACCCATGAACCGGCGAGAGACTGACTTGCATACCAAATGTGTGGTGGATGTGGATGCAAACAAGGTTATTCTTAA
TCTGTAAATACGAATCTTTCCAAAGGAGATGCCCCGGGCGCAGCCGAAGTGTGTTTGTCTTATGATCATTGTTTCTG
GTCTATGGATGAATCTGTCAAAGAAAAGTATGCAGGTCAAGATATTGTTTTCAAGTGCCTTGGAGAGAATATCCT
GCAGAATGCTTTTGATGGCTACAATGCATGTATCTTTGCCTATGGACAGACTGGCTCTGGAAAATCTTATACCAT
GATGGGCACAGCTGACCAACCTGGATTAATCCCAAGACTTTGCAGTGGACTCTTTGAACGAACCTCAGAAAGAGGA
AAATGAAGAACAGAGTTTTAAAGTAGAAGTGTCTACATGGAAATTTATAATGAAAAAGTTCGAGACCTTCTTGA
TCCCAAAGGAAGCCGTCAGACGTTGAAAGTCAGAGAGCATAGTGTGTTGGGACCTTATGTCGACGGACTTTCTAA
ACTGGCTGCCACAAGCTACAAGGATATTGAGTCGTTGATGTCTGAGGGTAACAAATCTCGCACTGTTGCTGCAAC
CAACATGAACGAGGAGAGTAGCCGATCCCATGCAGTTCTCAAAATCACCCCTCACACATACTCTCTACGATGCGAA
GTCTGGGACATCTGGAGAGAAAGTGGGCAAACTCAGCCTGGTGGATTTAGCTGGCAGTGAACGAGCAACGAAGAC
AGGCGCTGCAGGGGACAGGCTGAAGGAAGGGAGCAACATTAACGAGTCCCTCACACCCTCGGTCTGGTTATCTC
AGCTCTTGCAATCAGAGTGTCTGGCAAAAACAAGAATAAATTTGTTCCATATCGTGACTCAGTTCTCACCTGGCT
GCTCAAAGACAGCCTCGGGGGTAACAGCAAGACCGCCATGGTGGCTACTGTGAGTCCTGCAGCTGATAACTATGA
TGAAACCCTCTCAACTCTGCGGTATGCAGATCGAGCCAAGCACATTGTAAACAACGCTGTGGTGAATGAGGACCC
TAATGCCCGAATTATCCGGGACCTCCGGGAAGAAGTTGAGAAACTCCGGGAGCAGCTGACCAAAGCAGAGGCAAT
GAAATCTCCAGAGCTAAAGGACCGGCTGGAAGAATCTGAGAAGCTAATCCAGGAAATGACTGTGACCTGGGAGGA
GAAATTAAGGAAAACGGAGGAGATTGCACAGGAACGACAGAAACAGCTTGAGAGTCTTGGAATATCTCTTCAGTC
TTCGGGAATCAAAGTTGGGGATGATAAATGCTTCTTGTGAATCTGAATGCTGACCCAGCTCTGAATGAGCTTCT
GGTGTACTATTTAAAGGAACATACATTGATAGGGTCAGCAAATTCCTCAAGATATCCAACCTGTGCGGCATGGGAAT
TCTTCTGAACACTGTATTATAGACATCACGTGAGAAGGCCAGGTTATGCTGACTCCTCAGAAGAACACCAGAAC
ATTTGTAAATGGGTCACTCTGCTCCAGTCCAATACAGCTACACCATGGGGACAGGATATTATGGGGAAACAATCA
TTTCTTCAGACTCAATTTGCCTAAAAAGAAAAGAAAGCAGAACGAGAGGATGAGGACCAGGATCCCTCCATGAA
GAACGAGAATAGTTCTGAGCAGCTGGATGTAGACGGAGACTCCTCCAGCGAGGTGTCCAGTGAAGTTAACTTTAA
TTACGAATACGCACAGATGGAGGTCACCATGAAGGCCCTGGGCAGCAATGATCCGATGCAGTCCATATTAAACAG
CCTAGAACAACAGCATGAAGAAGAAAACGATCTGCACTGGAGCGCCAGAGGCTTATGTATGAGCACGAATTGGA
GCAGCTCCGGAGAAGGCTGTCTCCTGAGAAGCAGAACTGCCGGAGCATGGACAGGTTTTCTTTCCACTCGCCCAG
CGCTCAGCAACGCTTAAGACAGTGGGCTGAGGAGAGAGAAGCAACGTTGAATAACAGCCTGATGAGGCTGAGGGA
ACAAATTGTTAAGGCCAATCTATTGGTGAGAGAAGCTAATTACATTGCTGAGGAGCTGGATAAAAGAACAGAATA
CAAAGTTACCCTACAGATTCCAGCCTCCAGCCTGGATGCCAACAGGAAGCGAGGCTCTCTTCTTAGTGAGCCTGC
AATCCAGGTGAGAAGAAAAGGAAAAGGAAAGCAGATTGGTCTTTGGAAAACTGGACAACAGGCTGTTGGATAT
GAGAGACCTTTATCAGGAGTGGAAAGAGTGTGAAGAAGATAACCCAGTAATACGATCATACTTCAAACGTGCTGA
TCCATTCTATGATGAGCAGGAAAATCTCAGTCTCATTGGGGTGGCCAATGTCTTCTTCGAGTCACTTTTCTATGA
TGTGAAGTTACAATACGCTGTTCCCATCATCAACCAGAAAGGAGAGGTGGCAGGTTCGGCTGCACGTGGAGGTGAT
GCGACTCAGTGGTGTGTTGGGGAGAGGATCGCAGGAGGCGATGAGGTGGCAGAGGTCCCCCTTTGAGAAGGAGAC
CCAGGAGAACAACTGGTGTGCATGGTTAAATCTCGAAGCTACTGGGTTGCCACAGCATCTGTCCCACTTTGT
GTTCTGCAAATACAGCTTCTGGGATCAACAGGAGCCGGTGATTGTGCTCCTGAAGTGGACACCTCCTCCTCTTC
CGTCAGCAAGGAGCCGCACTGCATGGTTGTCTTTGATCATTGCAATGAGTTTTCTGTTAAACATCACCGAAGACTT
TATCGAGCATCTTTCCGAAGGAGCATTGGCAATTGAAGTATATGGACATAAAATAAACGATCCCCGGAAGAAACCC
CGCCCTGTGGGATTTGGGAATCATCCAAGCAAAGACACGTAGTCTTCGGGACAGATGGAGTGAAGTGACCAGGAA
ATTGGAATTCTGGGTTCAAATCTTGGAAACAGAAATGAGAATGGTGAATACTGCCCTGTAGAAGTGATTCTGCAA
GGATGTCCCAACAGGAGGAATCTTCCAGCTCCGGCAGGGGCAGTCCCGGAGAGTTCAAGTCGAAGTGAAGTCAGT
GCAGGAATCTGGGACTTTTACCACTGATGGAAGAATGTATACTGTCTGTTGGCATTGGATGTGTCAAAGTTAGACC
GCTCAGAGCCCCCAGAACACATGAGACCTTCCATGAGGAAGAGGAAGACATGGACAGCTACCAGGATCGAGATTT
AGAGAGACTTCGTAGAAAATGGCTAAATGCATTAACAAAACGTCAGGAGTACTTGGATCAACAATTGCAAAAGCT
TGTCAGTAAACGTGATAAAACAGAGGATGATGCTGACCGTGAAGCGCAGCTTCTGGAGATGCGGTTGACCCTAAC
TGAGGAGAGGAACGCGGTGATGGTCCCCTCTGCTGGCAGTGGTATTCCAGGGGCCCCAGCAGAATGGACCCCAGT
ACCTGGGATGGAGACACACATTCTGTATATTCTGGACTTAAATGCTGATGATTTCAGCTCTCAGGATAATCT

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FIGURE 436B

TGATGACCCAGAAGCTGGTGGATGGGATGCGACCTTGACTGGGGAAGAAGAAGAGGAGTTCTTTGAATTGCAGAT
TGTGAAGCAGCATGATGGGGAGGTGAAAGCAGAAGCCTCCTGGGACTCCGCGGTGCATGGCTGCCCTCAGCTCAG
CAGGGGCACGCCCCTGGACGAGCGGTGTTCCTGATCGTGCGGTGACGGTCCAGCTCAGCCACCCTGCTGACAT
GCAACTGGTGTACGCAAGAGAATCTGTGTCAATGTTACGGCCGCCAGGGTTTTGCACAGAGTCTCCTAAAAAA
GATGTCTCATCGAAGTTCTATTCTGGCTGTGGAGTGACTTTTTGAAATTGTCTCCAATATTCCAGAGGATGCCCCA
GGGAGTGAAGAACGGGAAGCATTAGCAAGAATGGCAGCCAATGTTGAAAACCCAGCTTCTGCTGACTCGGAGGC
TTATATTGAAAAGTACCTCAGGAGCGTGTGGCTGTAGAAAACCTCCTGACTTTAGATCGTCTGCGCCAGGAAGT
TGCAGTGAAGGAACAGTTAACAGGAAAAGGAAAGTTGAGCAGGAGGAGTATCAGTTCTCCAAATGTGAACAGATT
GTCTGGAAGCCGACAAGATCTCATTCCATCATAAGTCTAGGCAGCAACAAGGGCCGGTGGGAAAGTCAGCAGGA
TGTATCCCAAACACAGTTTCCAGAGGAATAGCTCCTGCCCCCGCCTCTCTGTTTCTCCCCAAAATAACCATTC
TCCAGATCCAGGACTCAGTAACCTTGCAGCATCCTACTTGAATCCTGTCAAATCCTTCGTGCCGCAAATGCCAAA
GCTCCTCAAGTCTCTCTTTCCCGTCCGCGATGAGAAGAGGGGCAAGCGGCCGTCTCCCTCGCACACCAGCCCCGT
GCCCCGCATCATGGTGCAGTCAGCCAGCCCGGACATCAGGGTGACCAGGATGGAGGAGGCTCAGCCGGAGATGGG
CCCTGACGTGCTGGTGCAGACGATGGGGGCCCCGGCCTTGAAGATCTGCGACAAACCTGCCAAAGTGCCTTCCCC
ACCGCCTGTCTAGCTGTACAGCGGTACCCCCGGCTCCGGAGGCACAGGACGGGCCCCCAGCCCCCTGAGTGA
AGCCTCTAGCGGGTACTTCTCCACAGCGTCTCCACCGCGACCCTGTGCGACGCCCTGGGCCCCGGCTGGACGC
TGCGGCCCCGCCGGGTCCATGCCACCGCCCCTGAGGCCGAGCCCGAGGCGCCCATCAGCCACCCCCACCGCC
CACGGCCGTCCCCGCCGAGGAGCCCCCTGGCCCCAGCAGCTCGTGAGCCCCGGTGGGAGCGCCCCGACCTCGA
GGCCCCGGCGCCCGGTCTCCCGTCCGCGTCCGGAGGGTGCGGGCCCTCGGAGTTGCGCTCCTTCTCGCGCATGCT
GGCTGGGGACCCCCGGTCTCTCCCGGGGGCCGAGGGGAATGCGCCGGCCCCGGGCGCCGGGGGACAGGCCCTGGC
CTCTGATTCCGAGGAAGCTGACGAGGTCCCGGAGTGGCTCCGAGAGGGCGAGTTCTGTCACCGTGGGCGCCACAA
AACGGGCGTGGTGAGATACGTGGGGCCTGCCGACTTCCAAGAGGGCACGTGGGTGCGCGTGGAGCTCGACCTGCC
CTCAGGTAAGAATGACGGTTCCATCGGCGGGAAGCAGTACTTCAGGTGTAACCCTGGCTACGGGCTGTGTGTCAG
GCCCAGCCGGGTCCGAGGGCCACGGGGCCTGTGCGGCGGCGCAGCACAGGACTCCGGCTGGGTGCCCCGAGGC
CCGCCGGAGCGCCACCCTCTCGGGCTCCGCCACCAACCTGGCCTCGCTGACAGCTGCCCTGGCCAAGGCCGACAG
GAGCCACAAGAACCCTGAGAACCAGGAAATCCTGGGCCAGCTGAGCCGCTGCCTTAGGGCGAACTTTCTGGGGGT
GCCCCGCCCCCTTTTGAAGCCTGCCAGTGACAGCCCTGAGGAGCCAGGAGCCCGGTGGCCCCCTCCCCAGGGGACAG
GGCGATGAATGCTTTTTTGCACGACACAGGGCTGGTGACCTCCCTGGGCCTCTGGAAGCTTTGTTTCTTGTGAC
CGGGTAAAGTGGGGGCTCAACTGTGCTCCTCCGGTGGATGGAAGTTCTGGGTGCCCCGAGGGGCTGGGGGAT
GCTAGGACTGAGACCCTGGGTGGTGACGCGCTGGTGATCTTGCTGTGTGCTGTGCTGGGGCCTTATGTTGCT
CTTTCTATCATTTCCATTCTGGTGGCCCCACTAATGTCTTAACCTAAACCATAATTGTAACCAAGTGCCCTTCCCTC
CCACTGGAGGGCAAGCCCCCCCCACCCACCCAGGATGTCTGGCTCACTCCGCAAGCCCCCAGCCTCCCACCT
GGTCCCAGTTTCCCGCAAAGTGCCCTCTGGGGGACCCCCAGCCTCCCACCTGGTCCCAGGTTCCACAAGTGCCCT
CTGGAGGGCCCTGGGCTCTGGCAGATGGTCTGGTGGCCAGACGGGGGCGAGGGCCTGAGCCCCCATCCCT
CCTCTGCCAGGGTTTCTTAGCGGTTTCTCTGTGGATGTTTTGGCATCTTTAGACACCTGGAAGTCTCTTATGTT
TGCCGTTTATTCCCTTACAGAAGGCTTGGAATGTATTTATTTATTTATTTTTTCAAAATCCGAAATCATTG
CGAGCCGCAATCGTCGTCTGCCTGTGTGGGGGGGCCAGGGCCTGCCTTGACGTTGCAGCCTCTCTGGCCATTG
CAGAGCTGCTGGCCTCCTGCCCAGGTGGAGGGTCCGGGGACGGCAGAGGATAAAGCCCCCTCCTCACATCCCTC
TATTGCGGATCCACAGTGGCCTTACTCTTAACCTTGGATGAGAGCAAAAACCTGGGAGAATGATGTGCTTCTGTAG
TCGGTGACAAAGGAAGAGGCATTGCTACTTTATTTGGTGCATTTTGGTTTCTAGGAAGGTCTTTGGGTCATTTT
AACTTCTCGGCAACTCCAGACTCTCAGAGTGTGGGGCTGGGGCCTGGCGGCTGGGCTGGTGCAGGGAGTGTGCT
GGTTAGTCTCCAGACCCTCACAGCAGCCACGCCCCAGGCCACCGTGCATGGTGTGGGCGGGACAGCCGGAAGC
TTCCGGGGTGGCCTCCACCTCCTGGCTGGGGCACTTATGCTCCAGAGCCTTTGGTGCCAGGTTTGTGGGATGGG
GGTTAGCGTCTATGTGTGAAGGCCACCAATCTAGGGACAGGAGTCTGGGTCAAGATTACACAGCCACCTTG
GAGCTGGTTTCTAGTTCTCACATTTAGTCAACATCTAGAAAGCGCTGCGGAAGGCTCTGGTTCTCTAGGGACTTG
AAGGCGCCAACAGAGTAGTCTCCATGGTGGGCCTGTCCAGCCCTGGCTGCGAGGACAGGTTGTCTTTCTCTCCC
CAGTTGGCGAGGGACACGAAGGCTGCGGCCGGGCTGGCAGAGGGCCCGGCCCTGGGGGAGGCACTCCTCCAGG
GCTCTCCCTGTCTTAGCCGATTTTGAAGGAACCTGTGGCACCTGTCCCTGGATGAAGAGCTGTACCTCTGCC

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FIGURE 436C

TTGCCCTTTAACTCAACCCGCTTCCCAGCACAGCGGCTTTCTTTTAAAACCTGTTTCACTGAGAAGTTTGTTTT
TGGGTCCGCTGGTGTCACTATGGCCTGGGTGAGAGGCCAGCACTGCTGCTGCCCTGAGGGGAAACGCCTGGGCCG
TG TAGTGGGGACGCTCTGGGAATGGTGGCGGACGGGCAGCGTGGGTGGGACCTGGCACTTCGTGGTGGCTGAGCC
ATCCACCCAGCAGCGGCCTCCTGTAGCACCATATTGGGAAAGTCCTGGGGGACGTGTGTGTCGTGCTTTTTACCA
TCGGTTTGACTTACAGTGGAGTAGAACGAGCCAGAGTTCCTGACTTGAGCAGGTGGATTTGGGCCAGGCCCTGT
TCACTCTTGCTTCTCGGTGCGGACTAATGTGAGCTTGTGGCTGGGAAAGAGGGATGTGCAGTGACGTGGTCACCA
AGGCAGTGAGCCCCGCTGACCCCGGGCCAGCACTTGGCAGGCAGGAGGTGCGGTCTCCAGAGTGGTGGGCCAGGG
CGGGCTGGCCTCCGTCTTCTATCTTTCTTTTCTTGCTCCCTGACCAGCAGACTCACCTCCCAAGAACGCCTGCCC
GCCACCCGCCTTAGGACTCCCGATGCGCTCCTGGAAGGCCCCAGGAGTGGCACCTTAGTGTGGGTGCGCCCGCA
GATGGCACCCAAGGCCGGGAAGGGCAGTAACTGCACACGCGGCGCTGTCAGAGATGGGGGTGGGGATGCTTCTG
GGGGCCCTGCCTCCCCATTGTGTGCCAGAACATCCCTGGCCCCACCCCGCCACTTCCCTCGGGCCCTTATGAAG
GACTGAGGCTCCAGGGTGAGAAGGCTCACTTCTGCCCCAGGCACTGCGTCCAGCAGCAGAGGGGACAGGGGGCAG
GTGTGTGACTGGGTTCTGGGTACCCAGGCCTGACCAGAGGGAGCGGGAGGGCAGAGGTGAGGAGGGGAAGATG
TTTCTGGGCCTACCAAGGTTCAACAAGAGAACGGAGCTGGGAATGTGACTGCTGGAGCCTGAGAGGTGGAGGAGT
TCTGATCCCCCGTTACTTCCTAGCATTTTCTCCTCTTGCTTAAAAGTTCCCTGTATGTGAAACGGGAAGTCCTG
AGAGTGTGTGTTGGTGGCTGTGCGCACGCACACAAGACGGGAGTCACCTGTGCTTCCTGCCCAAGATACTGACC
CATTGAACCCCCAAAGCATCTTTCTCTCCACAAAGTCCGTGGTGCCCTTCCTGGTGGGCTGCAGACACTAATGGTG
TTGGGGGGTCTTGGAACAGCTTCTCTATGTGTGGATTTCGTGTAAATGCGAAGAGTTCACATATAAAGAAGTGACT
TTGATTCTGTGATTATATTGATTTGGTACACAGTAAATGGGAGTTTAAAAATCCAAAGACTCTAATGACTTGTA
AAGACTCTAATGATTTGTATCATGTAATGAACAAACCACCTGTAATTTTGTACCATATGTGTCTTTCCATCAAA
TGACCAACAGCTTCTCAATAAAACCAGACCATTTCACCTGC

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FIGURE 437

MGDSKVKVAVRIRPMNRRETDLHTKCVVDVDANKVILNPVNTNLSKGDARGQPKCFAYDHCFSMDES VK EKYAG
QDIVFKCLGENILQNAFDGYNACIFAYGQTGSGKSYTMMGTADQPGLIPRLCSGLFERTQKEENEEQSFKVEVSY
MEIYNEKVRDILLDPKGSRTILKVREHSVLGPYVDGLSKLAATSYKDIESLMSEGNKSRIVAATNMNEESSRSHAV
LKITLTHTLTYDAKSGTSGEKVGKLSLVDLAGSERATKTGAAGDRLKEGNSNINESLTTLGLVISALADQSAGKNKN
KFVPYRDSVLTWLLKDSLGGNSKTAMVATVSPAADNYDETTLSTLRYADRAKHIVNNAVVNEDPNARIIRDLREEV
EKLREQLTKAEAMKSPKLDKRLKEESEKLIQEMTVTWEEKLRKTEEIAQERQKQLESGLISLQSSGIKVGDDKCFL
VNLNADPALNELLVYYLKEHTLIGSANSQDIQLCGMGLPEHCIIDITSEGQVMLTPQKNTRTFVNGSSVSSPIQ
LHHGDRILWGNHFFRLNLPKKKKKAEREDEDQDP SMKNENSSEQLDVGDDSSSEVSSEVNFNYEY AQMEVTMKA
LGSNDPMQSI LNSLEQQHEEEKRSALERQRLMYEHELEQLRRRLSPEKQNCRSMDFSFHSPSAQQR LRQWAEER
EATLNNSLMRLREQIVKANLLVREANYIAEELDKRTEYKVTLQIPASSLDANRKRGSLLSEPAIQVRRKGKGKQI
WSLEKLDNRLLDMRDLYQEWKECEDNPVIRS YFKRADPFYDEQENLSLIGVANVFLES LFYDVKLQYAVPIINQ
KGEVAGRLHVEVMRLSGDVGERIAGGDEVAEVPFEKETQENKLVCMVKILQATGLPQHLSHFVFCYSFWDQQEP
VIVAPEVDTSSSSVSKEPHCMVVF DHCNEFSVNITEDFIEHLSEGALAEVYGHKINDPRKNPALWDLGIIQAKT
RSLRDRWSEVTRKLEFWVQILEQ NENGEYCPVEVISAKDVPTGGIFQLRQGQSRRVQVEVKS VQESGTLPLMEEC
ILSVGIGCVKVRPLRAPRTHETFHEEEEDMSYQDRDLERLRKWLNALTKRQEYLDQQLQKLVS KRDKTEDDAD
REAQLLEMRLTLTEERNAVMPVSAGSGIPGAPAEWTPVPGMETHIPVIFLDLNADDFSSQDNLDDPEAGGWATL
TGEEEEEEFFELQIVKQHDGEVKAEASWDSAVHGPCQLSRGTPVDERLFLIVRVTVQLSHPADMQLVLRKRICVNV
HGRQGFAQSLLKKMSHRSSIPGCGVTFEIVSNIPEDAQGV EEREALARMAANVENPASADSEAYIEKYLRSVLAV
ENLLTLDRLRQEVAVKEQLTGKGKLSRRS ISSPNVNRLSGSRQDLIPSYSLGSNKGRWESQQDVSQTTVSRGIAP
APALSVSPQNNHSPDPGLSNLAASYLNPVKS FVPQMPKLLKSLFPVRDEKRGKRPSPLAHQPVPRIMVQSASPD I
RVTRMEEAQPEMGPDVLVQTMGAPALKICDKPAKVSPPPVIAVTAVTPAPEAQDGPPSP LSEASSGYFSHSVST
ATLSDALGPGLDAAAPP GSMTAPEAEPEAPISHPPPTAVPAEEPPGPQQLVSPGRERPDLEAPAPGSPFRVRR
VRASELRSFSRMLAGDPGCSPGAEGNAPAPGAGGQALASDSEEADVEPWLREGEFVTVGAHKTGVVRYVGPADF
QEGTWVGVELDLP SGKNDGSI GGKQYFR CNPGYGLLV RPSRVRRATGPVRRRSTGLRLGAPEAR SATLSGSATN
LASLTAALAKADRSHKNPENRKSWAS

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FIGURE 438A

CAGACAGGATATTCACTGCTGTGGCAAGGCCTGTAGAGAGTTTCGAAGTTAGGAGGACTCAAGACGGTCCCTCCC
TGGACTTTTCTGAAGGGGCTCAAAAGATGACACGCCAGAGCTGGAAGGCGTCGCCAATTGGTCCAACTTTTC
CTCCTCCCTTTTTGCGGATGAGAAAACTGAGGCCAGGTTTGGGATTTCAGAGCCCGGGATTTCGCGCAACG
CCGACAACCACATTCCTCCCGCTATTCTGACCCGCCCGGTTCCGGGACGCTCCCTGGGAGCCGCCGCCGAGGGC
CTGCTGGGACTCCCGGGGACCCGCCGTCGGGGCAGCCCCACGCCCGGCCGCCGCCGGAACGGCGCCGCTG
TTGCGCACTTGCAGGGGAGCCGGCGACTGAGGGCGAGGCAGGGAGGGAGCAAGCGGGGCTGGGAGGGCTGCTGGC
GCGGGCTCGCCGGCTGTGTATGGTCTATCGCAGGCAGCTGACCTTTGAGGAGGAAATCGTGCTCTCCGCTCCTT
CCTGTAGTAACAGCCGCCGCTGCCGCCGCCAGGAACCCCGGCCGGGAGCGAGAGCCGCCGGGGCGCAGAGCCG
GCCCGGCTGCCGGACGGTGCGGCCCCACCAGGTGAACGGCCATGGCGGGCTGGATCCAGGCCAGCAGCTGCAGG
GAGACGCGCTGCGCCAGATGCAGGTGCTGTACGGCCAGCACTTCCCCATCGAGGTCCGGCACTACTTGGCCAGT
GGATTGAGAGCCAGCCATGGGATGCCATTGACTTGGACAATCCCCAGGACAGAGCCCAAGCCACCCAGCTCCTGG
AGGGCCTGGTGCAAGGAGCTGCAGAAGAAGGCGGAGCACCAGGTGGGGGAAGATGGGTTTTTACTGAAGATCAAGC
TGGGGCACTACGCCACGCAGCTCCAGAAAACATATGACCGCTGCCCCCTGGAGCTGGTCCGCTGCATCCGGCACA
TTCTGTACAATGAACAGAGGCTGGTCCGAGAAGCCAACAATTGCAGCTCTCCGGCTGGGATCCTGGTTGACGCCA
TGTCCAGAAAGCACCTTCAGATCAACCAGACATTTGAGGAGCTGCGACTGGTCACGCAGGACACAGAGAATGAGC
TGAAGAACTGCAGCAGACTCAGGAGTACTTCATCATCCAGTACCAGGAGAGCCTGAGGATCCAAGCTCAGTTTG
CCCAGCTGGCCAGCTGAGCCCCCAGGAGCGTCTGAGCCGGGAGACGGCCCTCCAGCAGAAGCAGGTGTCTCTGG
AGGCCTGGTTGCAGCGTGAGGCACAGACACTGCAGCAGTACCGCGTGGAGCTGGCCGAGAAGCACCAGAAGACCC
TGCAGCTGCTGCGGAAGCAGCAGACCATCATCCTGGATGACGAGCTGATCCAGTGGAAGCGGCGGCAGCAGCTGG
CCGGAACGGCGGGCCCCCGAGGGCAGCCTGGACGTGCTACAGTCTGGTGTGAGAAGTTGGCCGAGATCATCT
GGCAGAACC GG CAGCAGATCCGCAGGGCTGAGCACCTCTGCCAGCAGCTGCCCCATCCCCGGCCAGTGGAGGAGA
TGCTGGCCGAGGTCAACGCCACCATCACGGACATTATCTCAGCCCTGGTGACCAGCACATTTCATCATTGAGAAGC
AGCCTCCTCAGGTCTGAAGACCCAGACCAAGTTTGAGCCACCGTACGCCTGCTGGTGGGCGGGAAGCTGAACG
TGCACATGAATCCCCCCCAGGTGAAGGCCACCATCATCAGTGAGCAGCAGGCCAAGTCTCTGCTTAAAAATGAGA
ACACCCGCAACGAGTGCACTGGTGAGATCCTGAACAACTGCTGCGTGATGGAGTACCACCAAGCCACGGGCACCC
TCAGTGCCCACTTCAGGAACATGTCAGTGAAGAGGATCAAGCGTGCTGACCGCGGGGTGCAGAGTCCGTGACAG
AGGAGAAGTTCACAGTCTGTTTGAAGTCTCAGTTTCAAGTGTGGCAGCAATGAGCTTGTGTTCCAGGTGAAGACTC
TGTCCTTACCTGTGGTTGTATCGTCCACGGCAGCCAGGACCACAATGCCACGGCTACTGTGCTGTGGGACAATG
CCTTTGCTGAGCCGGGCAGGGTGCCATTTGCCGTGCCGTGACAAAGTGCTGTGGCCCGCAGCTGTGTGAGGCGCTCA
ACATGAAATTCAAGGCCGAAGTGCAAGCAACCGGGGCCTGACCAAGGAGAACCTCGTGTTTCTGGCGCAGAAAC
TGTTCAACAACAGCAGCAGCCACCTGGAGGACTACAGTGGCCTGTCCGTGTCTGGTCCCAGTTCAACAGGGAGA
ACTTGCCGGGCTGGAACACACCTTCTGGCAGTGGTTTGACGGGGTGATGGAGGTGTTGAAGAAGCACCACAAGC
CCCACTGGAATGATGGGGCCATCCTAGGTTTGTGAATAAGCAACAGGCCCACGACCTGCTCATCAACAAGCCG
ACGGGACCTTCTTGTGCGCTTTAGTGACTCAGAAATCGGGGGCATCACCATCGCCTGGAAGTTTGACTCCCCGG
AACGCAACCTGTGGAACCTGAAACCATTACCCACGCGGGATTCTCCATCAGGTCCCTGGCTGACCGGCTGGGGG
ACCTGAGCTATCTCATCTATGTGTTTCTGACCGCCCCAAGGATGAGGTCTTCTCCAAGTACTACACTCCTGTGC
TGGCTAAAGCTGTTGATGGATATGTGAAACCACAGATCAAGCAAGTGGTCCCTGAGTTTGTGAATGCATCTGCAG
ATGCTGGGGGCAGCAGCGCCACGTACATGGACCAGGCCCCCTCCCAGCTGTGTGCCCCCAGGCTCCCTATAACA
TGTACCCACAGAACCCTGACCATGTACTCGATCAGGATGGAGAATTCGACCTGGATGAGACCATGGATGTGGCCA
GGCAGTGGAGGAACCTTACGCCGACCAATGGACAGTCTTGACTCCCGCTCTCGCCCCCTGCCGGTCTTTTCA
CCTCTGCCAGAGGCTCCCTCTCATGAAATGTTTGAATCCACGCTTCTCTTTGAAACAATATGCAATGTGAAGCG
GTCGTGTTGTGAGTTTAGTAAGGTTGTGTACACTGACACCTTTGCAGGCATGCATGTGCTTGTGTGTGTGTGT
GTGTGTGTCTTGTGCATGAGCTACGCCTGCCTCCCTGTGCAGTCTGGGATGTGGCTGCAGCAGCGGTGGCCT
CTTTTCAGATCATGGCATCCAAGAGTGCGCCGAGTCTGTCTCTGTGATGGTAGAGACCGAGCCTCTGTCACTGCA
GGCACTCAATGCAGCCAGACCTATTCCTCCTGGGCCCTCATCTGCTCAGCAGCTATTTGAATGAGATGATTGAG
AAGGGGAGGGGAGACAGGTAACGTCTGTAAGCTGAAGTTTCACTCCGGAGTGAGAAGCTTTGCCCTCCTAAGAGA
GAGAGACAGAGAGACAGAGAGAGAGAAAGAGAGAGTGTGTGGGTCTATGTAAATGCATCTGTCTCATGTGTTGA
TGTAACCGATTCTCTCAGAAGGGAGGCTGGGGGTTCAATTTTCAGTAGTATTTTATACTTTAGTGAACGTGG

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FIGURE 438B

ACTCCAGACTCTCTGTGAACCCTATGAGAGCGCGTCTGGGCCCCGCCATGTCCTTAGCACAGGGGGGCCCGCGGT
TTGAGTGAGGGTTTCTGAGCTGCTCTGAATTAGTCCTTGCTTGGCTGCTTGGCCTTGGGCTTCATTCAAGTCTAT
GATGCTGTTGCCCCACGTTTCCCGGGATATATATTCTCTCCCTCCGTTGGGCCCCAGCCTTCTTTGCTTGCCCTCT
CTGTTTGTAACCTTGTCGACAAAGAGGTAGAAAAGATTGGGTCTAGGATATGGTGGGTGGACAGGGGGCCCCGGGA
CTTGAGGGGTGGTCCCTCTTGCCCTCCTGGAAAAACAAAAACAAAAACTGCAGTGAAAGACAAGCTGCAAATCA
GCCATGTGCTGCGTGCCGTGTGGAATCTGGAGTGAGGGGTAAAAGCTGATCTGGTTTGACTCCGCTGGAGGTGGGG
CCTGGAGCAGGCCTTGCGCTGTTGCGTAACTGGCTGTGTTCTGGTGAGGCCTTGCTCCCAACCCACACGCTCCT
CCCTCTGAGGCTGTAGGACTCGCAGTCAGGGGCAGCTGACCATGGAAGATTGAGAGCCCAAGGTTTAAACTTCTC
TGAAGGGAGGTGGGGATGAGAAGAGGGGTTTTTTTGTACTTTGTACAAAGACCACACATTTGTGTAAACAGTGTT
TTGGAATAAAATATTTTTTTCAT

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FIGURE 439

MAGWIAQQLOGDALRQMQLVLYGQHFPIEVRHYLAQWIESQPWDAIDLDPQDRAQATQLLEGLVQELQKKAHQ
VGEDGFLKIKLGHYATQLQKTYDRCPLELVRCIRHILYNEQRLVREANNCS SPAGILVDAMSQKHLQINQTFEE
LRLVTQDTENELKKLQQTQOEYFI IQYQESLRIQAQFAQLAQLSPQERLSRETALQQKQVSLEAWLQREAOQLQQY
RVELAEKHQKTLQLLRKQQTII LDDELIQWKRRQQLAGNGGPPEGSLDVLQSWCEKLAEI IWQNRQQIRRAEHL
QQLPIPGPVEEMLAEVNATITDI ISALVTSTFI IEKQPPQVLKTQTKFAATVRLLVGGKLVNVMNPPQVKATII S
EQQAKSLLKNENTRNECSGEILNNCCVMEYHQATGTL SAHFRNMSLKRIKRADRRGAESVTEEKFTVLFESQFSV
GSNELVFQVKTLSPVVVIVHGSQDHNATATVLWDNAFAEPGRVPFAVPDKVLWLPQLCEALNMKFKAQEVQSNRGL
TKENLVFLAQKLFNNSSSHLEDYSGLSVSWSQFNRENLPGWNYTFWQWFDGVMVLEKHHKPHWNDGAILGFVNK
QQAHDLLINKPDGTFLLRFSDSEIGGITIAWKFDSPERNLWNLKPFTTRDFSIRSLADRLGDLSYLIYVFPDRPK
DEVFSKYYPVLAKAVDGYVKPQIKQVVPEFVNASADAGSSATYMDQAPSPAVCPQAPYNMYPQNPDPHVLDQDG
EFDLDETMDVARHVEELLRRPMDSLDSRLSPAGLFTSARGSL

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FIGURE 440A

TCTCCTCCTACCGGTCGGGTGCCCCGGGGCGTTCCCTCTGCCGCTGCTTCTCGGCGCGGTTCTTACCCGGCCGCT
CCCCGAGGCGCGGGCTCTGGCGGCCTCGACCGACTAGGACGCCCCGTGCGCCGCCCGCGGGCCGCCGCTCCCTG
GGCGCGCGGGGCCAGCATGGAGCTCTTCCAAGCCAAGGACCACTACATCCTGCAGCAGGGCGAGCGCGCGCTGTG
GTGCAGCCGCCGCGACGGCGGCCTCCAGCTCCGACCCGCTACTGATCTACTTCTTGCCTGGAATCCCATTGTGTT
GGGGTTGGTAGAAGGTGTTATTGGGAAAATTCAACTTCATTTCAGATCTTCCATGGTGGCTTATTCTAATTCGGCA
GAAAGCATTGGTGGGCAAACCTCCAGGAGACCATGAGGTCTGTAAAGTTACCAAATTTGCTGTGCTCTCACTTTC
TGAAATGGAACCTCAGGATCTTGAGCTAGAGCTCTGTAAAGCATCATTGTTGGTATTAACAAACCAGAGAAGAT
CATACCATCTCCTGATGACTCAAAGTTTCTACTGAAGACCTTTACGCATATTAAATCCAATGTGTCTGCTCCTAA
TAAAAAGAAAGTTAAGGAAAGTAAAGAGAAGGAGAAGTTGGAGAGGAGATTACTTGAAGAGTTGCTGAAGATGTT
CATGGACTCAGAATCCTTTTATTATAGCTTGACCTATGACCTGACCAATTCCGTGCAGAGGCAGAGCACTGGGGA
GAGGGACGGTCGGCCCTCTGGCAGAAGGTTGATGACCGATTTTTTTGGGAATAAATACATGATACAAGATCTTAC
TGAGATTGGTACTCCAGATGTGGACTTTTGGATTATCCCCATGATCCAAGGTTTTGTGCAGATTGAAGAAGTTGT
GGTTAATTATACCGAATCATCTGATGATGAGAAAAGCAGCCCAGAGACCCCCCTCAGGAGTCCACCTGTGTAGA
TGATATTCACCCACGATTTCTAGTGGCTCTCATTTTACGCCGAAGTAGGCACAGAGCAGGAATGCGCTATAAACG
AAGAGGAGTGGATAAAAATGGAAATGTTGCCAATTATGTGGAGACTGAGCAGTTGATTTCATGTTTATAATCATA
CCTGTCAATTTGTTCAAACACGAGGCTCTGTGCCTGTCTTTTGAGCCAGGTTGGGTATCGATATAACCCAAGACC
GCGGCTGGACAGAAGTGAAAAGGAACTGTTGCCTATTCTGTGCCATTTCGAAGAACAACCTGAACATTTACAA
AAAACAGGTTATTATTAACCTGGTAGACCAGGCAGGAAGAGAGAAGATTATTGGCGATGCTTACCTGAAGCAAGT
GTTGCTTTTCAAACAACCTCACACCTCACTTACGTTTCGTTTGACTTCCATGAGCACTGCCGAGGAATGAAGTTTGA
GAATGTTTCAGACACTAACAGATGCCATTTATGACATTATTCTTGATATGAAGTGGTGTGGGTTGATGAAGCTGG
GGTAATATGTAAGCAGGAAGGGATTTTTCTGTGTTAATTGTATGGACTGCCTGGATCGCACCAACGTGGTCCAAGC
TGCCATCGCGAGAGTGGTCATGGAACAGCAGCTGAAAAAATTAGGTGTGATGCCCCCGGAACAGCCATTACCTGT
GAAATGTAATCGCATCTACCAGATAATGTGGGCCAATAATGGTGACTCCATTAGCAGACAGTATGCTGGGACAGC
TGCTCTGAAGGGTGACTTTACAAGGACAGGAGAAAAGGAAGTTAGCAGGAGTTATGAAAGATGGAGTGAACCTCAGC
AAACAGATATTACCTCAACCGATTAAAGGATGCTTATAGGCAAGCTGTTATAGATTGATGCAAGGCATTCCAGT
GACAGAAGATCTTTATTCCATATTTACCAAGGAGAAAGAACATGAAGCTTTGCATAAGGAAAATCAGAGAAGCCA
CCAGGAACATAATTAGCCAGCTCTTACAAAGTTACATGAAGTTACTACTGCCTGATGATGAGAAGTTCCATGGGGG
CTGGGCCCTCATTGACTGTGACCCTAGCCTCATTGATGCTACTCACAGAGACGTGGATGTGCTGTTACTGCTTTT
TAACTCTGCCTACTACGTGGCCTATTATGATGATGAAGTTGATAAAGTAAACCAGTATCAACGACTAAGTCTAGA
AAACCTGGAAAAAATTGAAATAGGCCCTGAACCCACTCTTTTTGGTAAGCCAAAAGTTCTCCTGCATGCGACTGCA
CTACAGATACAAAGAAGCGAGTGGCTATTTCCACACATTGCGAGCTGTAATGCGTAATCCTGAAGAGGATGGAAA
AGATACCCTTCAGTGCATTGCAGAGATGCTGCAGATCACCAAGCAAGCCATGGGATCGGATTTACCCATAATTGA
GAAGAACTTGAGAGGAAGAGCAGTAAACCTCACGAAGACATCATTGGTATCAGGTCTCAAAACCAAGGTTCTTT
GGCCCAGGGAAAGAATTTTTAATGAGCAAATTTTCTCTCTAAATCAAAAAGTGAAGCAGACCAAATCCAATGT
AAATATTGGCAACCTCCGAAAGCTAGGAACTTTACCAAACCTGAAATGAAAGTTAACTTTCTAAAACCAAACCTT
AAAAGTAAATCTTTGGAAATCAGATAGTAGTCTTGAAACTATGGAAAACACAGGAGTGATGGATAAGGTTTCAGGC
AGAGTCTGATGGGGACATGTCTTCAGATAATGACTCATACCCTCTGATGAATTCCTTACAAATTCTAAGTCTGA
TGAAGACAGGCAGCTAGCTAACTCATTAGAGAGTGTAGGGCCAATAGATTACGTTCTTCTTAGTTGTGGTATTAT
TGCTCAGCGCCTCGATTGGGCGAGTCGGTCCCAGTCTCTTAGCAGCACAGATAGTAGCGTTTCATGCTCCTTCAGA
GATTACTGTTGCTCATGGGAGTGGGCTTGAAAAAGGCCAGGAGTCTCCTTTGAAGAAAAGTCCTTCTGCTGGCGA
CGTACACATATTGACTGGCTTTTGCCAAGCCTATGGATATTTACTGCCACAGATTTGTGCAAGATGCACAGAACAA
AGTGACCCACCTATCAGAGACCAGATCTGTGTCTCAGCAGGCTAGTCAGGAAAGAAATCAAATGACCAATCAAGT
TTCAAATGAAACCCAATCAGAATCAACAGAACAGACACCTTCTCGGCCATCGCAATTAGATGTCTCTCTTTCTGC
AACAGGCCACAGTTTTTTGTGAGTTGAGCCAGCGCATTGAGTTGCATCTCAAAAAACCCCCACCTCCGCTTCCAG
CATGCTTGAACCTTGAGACAGGGCTTCATGTAACCTCTTCTCTTCAGAGAGCAGTAGCAGCAGAGCAGTCTCTCC
CTTTGCCAAGATTGCAAGTTCCATGGTCCAGGTTGCTAGTATTACCCAAGCTGGATTAAACCCATGGGATAAACTT
TGCAGTGTCAAAAGTTTCAAGAGTCTCCAGAACCTGAAATCATTAAATCAAGTCCAGCAAAATGAACTTAAAA
GATGTTTATACAATGCCAGACACGGATAATTCAGATTTAGCTTTTAGCCATAAGAATCCTTCCATGGCTTTTATT

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FIGURE 440B

TAAAAATATGAAATTTTCACCTCTTGGGGTATTTTAATTGTACTGTCTGAACCCAGGGATCACAAATTCTGTTCA
TTGGAAAGGGTTTTAAACGGAGTCGGAACCTGAGTAGATTTCCAAATTTTACAGCCAGGACTACAGAAGTGCATC
ATTCTAGAATGTGTAGACCTGAGTAGCTTATACACTACAGAGCACTTTGCTTATTTGAAAGTAATTCAGCAACAG
GTCACCTTTGGGATATAACCTGAACCTTTTTTTGGAGTGGGGTGGGTAGACTACAGTAGACACAAGGGCTGGACAT
GCAGATGCTTAGGGGATTAGCGTTTTTTCATAATTTGTTCTGTTTGTTCAGTTCATTCTGTGTGTTCTTACCTCTA
CAAAGTAAATTACACATTTAGTTTTTAGTGACTTTAACATGTTACTGAAGCATTGAAATATAAAGCTATTTTAGT
TTTGATGGCTTAACCTGTTCCCTGAGGAGTTGAGGGTTATTGACACTAGAGAAATGAATTCTCATTTGATCCTAAT
TTTCCCCGTATTCTACTTGAACACATTAAAAATAC TCTGCTGCCTATACAATGTAAACCTAGGAGCATTAAAGACT
TGTCACACAGTAAACCTGATACATCAGAGGTGAATACCAGCACCTATTAGGTTTCATTTTGCTGTTTTCAGGAAT
GTAAGAACACCCATATTGGCTACTGGAATTTCTAGCAGTCAGTCAGGTTTTAATTTATTCCAGGAGGGGCATCCT
CGACATCTTATGTAGATGATCCACAACCTCAAATTTAGTCTGGGCCTAGTGCAGTGGCTCACACCTATAATCCC
AACACTTTGGGAGGCCAGGAGTTTTGAGACCAGCCTGGGAAACATCTGCCTCTACAAAAAAATACAAAAATTAGC
TGGGCATAGTGGTGCATGCCTGTGTTTCTAGCTACGCAGGAGGATTGCTTGAGCCCATGAGATTGAGGCTGCAGT
GAGCTGTGATCGTGCCACTGACCTCCAGCCTGGGGGACAGAGCAAGACCGTGTCTCAAAAACAATTTAGTCTGAA
ACACAATTGTGCTGAATCTGTCTGACTATAACTCTGACCACACAGAACCAGGGCTGCCCCGTGAATCCCCACAGT
AAGAAAGTTGTATGGCATATTCCAACAAGTATTGGTTTCGTCTGGTGTCTTTAGAGCTTTACTCTGTTGAAGTGAC
TGATTCTCAACTGAACATTATGTCGTTACTTTGATAAGCATTCCACTTTTGTATTATTAGTGCTATCTTTTTT
TTTACGTGTTAAATCTTGTGATTATTAAATAAAGTACCATTGTAATTT

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FIGURE 441

MELFQAKDHYILQQGERALWCSSRDGGLQLRPATDLLLAWNPICLGLVEGVIGKIQ LHSDLPWWLILIRQKALVG
KLPGDHEVCKVTKIAVLSLSEMEPDLELELCCKHHFGINKPEKIIPSPDDSKFLLKTFTHIKSNVSAPNKKKVK
ESKEKEKLERRLLEELLKMFMDSESFYYSLT YDLTNSVQRQSTGERDGRPLWQKVDDRRFFWNKYMIQDLTEIGTP
DVDFWIIPMIQGFVQIEELVVNYTESSDEKSSPETPPQESTCVDDIHPRFLVALISRRSRHRAGMRYKRRGVDK
NGNVANYVETEQLIHVHNHTLSFVQTRGSVPVFW SQVGYRYNPRPRLD RSEKETVAYFCAHFEEQLNIYKKQV I I
NLVDQAGREKII GDAYLKQVLLFNNSHLTYVSFDFHEHCRGMKFENVQTLTDAIYDIILDMKWCWVDEAGVICKQ
EGIFRVN CMDCLDR TNVVQAAIARVVMEQQLKKLGVMPP EQPLPVKCNRIYQIMWANNGDSISRQYAGTAALKGD
FTRTGERKLAGVMKDG VNSANRYYLNRFKDAYRQAVIDL MQGIPVTEDLYSIFTKEKEHEALHKENQRSHQELIS
QLLQSYMKLLLPDDEKFHGGWALIDCPSLIDATHRDVDVLLLLSNSAYYVAYDDEVDKVNQYQRLSLENLEKI
EIGPEPTLFGKPKFSCMRLHYRYKEASGYFHTLRVMRNPEEDGKDTLQCIAEMLQITKQAMGSDLP I IEKKLER
KSSKPHEDIIGIRSQNQGSLAQGNFLMSKFSSLNQKVQTKSNVNIGNLRKLG NFTKPEMKVNF LKPNLKVNLW
KSDSSLETMENTGVMDKVQAESDGMSSDND SYHSDEF LTNSKSD EDRQLANSLESVGP IDYVLPSCGIIASAPR
LGSRSQSLSSDSSVHAPSEITVAHGSGLGKGQESPLKKSPSAGDVHILTGF AKPMDIYCHRFVQDAQNKVTHLS
ETRSVSQQASQERNQMTNQVSNETQSESTEQTSPSRPSQLDVSLSATGPQFLSVEPAHSVASQKTPTSASSMLELE
TGLHVTPSPSESSSSRAVSPFAKIRSSMVQVASITQAGLTHGINFAVSKVQKSPPEPEIINQVQQNELKKMFIQC
QTRIIQI

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FIGURE 442A

GTTGGCCCCCGTTACTTTTCTCTGGGAAATATGGCGCACGCTGGGAGAACAGGGTACGATAAACC GGGAGATAGT
GATGAAGTACATCCATTATAAGCTGTGCGAGAGGGGCTACGAGTGGGATGCGGGAGATGTGGGCGCCGCGCCCC
GGGGGCCGCCCCCGCGCCGGGCATCTTCTCCTCGCAGCCCCGGGCACACGCCCCATACAGCCGCATCCCGGGACCC
GGTCGCCAGGACCTCGCCGCTGCAGACCCCCGGCTGCCCCGGCGCCGCGCGGGGCTGCGCTCAGCCCGGTGCC
ACCTGTGGTCCACCTGACCCTCCGCCAGGCCGGCGACGACTTCTCCCGCCGCTACCGCCGCGACTTCGCCGAGAT
GTCCAGGCAGCTGCACCTGACGCCCTTACC CGCGCGGGGACGCTTTGCCACGGTGGTGGAGGAGCTCTTCAGGGA
CGGGGTGAAGTGGGGGAGGATTGTGGCCTTCTTTGAGTTCCGTGGGGTTCATGTGTGTTGGAGAGCGTCAACCGGGA
GATGTCGCCCTGGTGGACAACATCGCCCTGTGGATGACTGAGTACCTGAACCGGCACCTGCACACCTGGATCCA
GGATAACGGAGGCTGGGATGCCTTTGTGGAAGTGTACGGCCCCAGCATGCGGCCTCTGTTTGATTTCTCCTGGCT
GTCTCTGAAGACTCTGCTCAGTTTGGCCCTGGTGGGAGCTTGCATCACCCCTGGGTGCCTATCTGGGCCACAAGTG
AAGTCAACATGCCCTGCCCCAAACAAATATGCAAAAGGTTCACTAAAGCAGTAGAAATAATATGCATTGTCTAGTGA
TGTTCCATGAAACAAAGCTGCAGGCTGTTTAAAGAAAAAATAACACACATATAAACATCACACACACAGACAGACA
CACACACACACAACAATTAACAGTCTTCAGGCAAAACGTGCAATCAGCTATTTACTGCCAAAGGGAAATATCATT
TATTTTTTACATTATTAAGAAAAAAGATTTATTTATTTAAGACAGTCCCATCAAAACTCCTGTCTTTGGAAATC
CGACCACTAATTGCCAAGCACCGCTTCGTGTGGCTCCACCTGGATGTTCTGTGCCTGTAAACATAGATTTCGCTTT
CCATGTTGTTGGCCGGATCACCATCTGAAGAGCAGACGGATGGAAAAAGGACCTGATCATTGGGGAAGCTGGCTT
TCTGGCTGCTGGAGGCTGGGGAGAAGGTGTTTCACTTGCATTTCTTTGCCCTGGGGGCTGTGATATTAACAG
AGGGAGGGTTTCTGTGGGGGGAAGTCCATGCCTCCCTGGCCTGAAGAAGAGACTCTTTCATATGACTCACATGA
TGCATACCTGGTGGGAGGAAAAGAGTTGGGAAGTTCAGATGGACCTAGTACCCACTGAGATTTCCACGCCGAAGG
ACAGCGATGGGAAAAATGCCCTTAAATCATAGGAAAGTATTTTTTTAAGCTACCAATTGTGCCGAGAAAAGCATT
TTAGCAATTTATACAATATCATCCAGTACCTTAAGCCCTGATTGTGTATATTCATATATTTTGGATACGCACCCC
CCAACCTCCCAATACTGGCTCTGTCTGAGTAAGAAACAGAATCCTCTGGAAGTTGAGGAAGTGAACATTTCCGGTGA
CTTCCGCATCAGGAAGGCTAGAGTTACCCAGAGCATCAGGCCGCCACAAGTGCTTCTTTAGGAGACCGAAGTC
CGCAGAACCTGCCTGTGTCCAGCTTGGAGGCTGGTCTTGAAGCTGATGGAGCTCAGAATTCACCTGTCAAGAAAGA
GGATGATCAACAGGGCAGTGTGGTCTCCGAATGCTGGAAGCTGATGGAGCTCAGAATTCACCTGTCAAGAAAGA
GCAGTAGAGGGGTGTGGCTGGGCCTGTACCCCTGGGGCCCTCCAGGTAGGCCCGTTTTACGCTGGAGCATGGGAG
CCACGACCCTTCTTAAGACATGTATCACTGTAGAGGGAAGGAACAGAGGCCCTGGGCCCTTCTATCAGAAGGAC
ATGGTGAAGGCTGGGAACGTGAGGAGAGGCAATGGCCACGGCCCATTTTGGCTGTAGCACATGGCACGTTGGCTG
TGTGGCCTTGGCCACCTGTGAGTTTAAAGCAAGGCTTTAAATGACTTTGGAGAGGGTCACAAATCCTAAAAGAA
GCATTGAAGTGAGGTGTATGGATTAATTGACCCCTGTCTATGGAATTACATGTAAACATTATCTTGTCACTGT
AGTTTGGTTTTATTTGAAAACCTGACAAAAAAAAGTTCCAGGTGTGGAATATGGGGGTATCTGTACATCCTGG
GGCATTAAAAAAAATCAATGGTGGGGAAGTATAAAGAAGTAACAAAAGAAGTGACATCTTCAGCAAATAAACT
AGGAAATTTTTTTTCTTCCAGTTTAGAATCAGCCTTGAAACATTGATGGAATAACTCTGTGGCATTATTGCATT
ATATACCATTATCTGTATTAACTTTGAATGTACTCTGTTCAATGTTTAAATGCTGTGGTTGATATTTGAAAGC
TGCTTTAAAAAATACATGCATCTCAGCGTTTTTTTGTTTTTAATTGTATTTAGTTATGGCCTATACACTATTTG
TGAGCAAAGGTGATCGTTTTCTGTTTGAGATTTTTATCTCTTGATTCTTCAAAGCATTCTGAGAAGGTGAGATA
AGCCCTGAGTCTCAGCTACCTAAGAAAAACCTGGATGTCACTGGCCACTGAGGAGCTTTGTTTCAACCAAGTCAT
GTGCATTTCCACGTCAACAGAATTGTTTTATTGTGACAGTTATATCTGTTGTCCCTTTGACCTTGTTTCTTGAAGG
TTTCTCTGCTCCCTGGGCAATTCCGCATTTAATTCATGGTATTTCAGGATTACATGCATGTTTGGTTAAACCCATGA
GATTCATTACAGTTAAAAATCCAGATGGCAAATGACCAGCAGATTCAAATCTATGGTGGTTTGACCTTTAGAGAGT
TGCTTTACGTGGCCTGTTTCAACACAGACCCACCCAGAGCCCTCCTGCCCTCCTTCCGCGGGGGCTTTCTCATGG
CTGTCTTTCAGGGTCTTCTGAAATGCAGTGGTGTACGCTCCACCAAGAAAGCAGGAAACCTGTGGTATGAAG
CCAGACCTCCCCGGCGGGCCTCAGGGAACAGAATGATCAGACCTTTGAATGATTCTAATTTTTAAGCAAAATATT
ATTTTATGAAAGGTTTACATTGTCAAAGTGATGAATATGGAATATCCAATCCTGTGCTGCTATCCTGCCAAAATC
ATTTTAAATGGAGTCAGTTTGCAGTATGCTCCACGTGGTAAGATCCTCCAAGCTGCTTTAGAAGTAACAATGAAGA
ACGTGGACGCTTTTAAATATAAAGCCTGTTTTGTCTTCTGTTGTTGTTCAAACGGGATTACAGAGTATTTGAAAA
ATGTATATATATTAAGAGGTACGGGGGCTAATTGCTGGCTGGCTGCCTTTTGCTGTGGGGTTTTGTTACCTGGT
TTTAATAACAGTAAATGTGCCAGCCTCTTGGCCCCAGAACTGTACAGTATTGTGGCTGCACTTGCTCTAAGAGT

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FIGURE 442B

AGTTGATGTTGCATTTTCCTTATTGTTAAAAACATGTTAGAAGCAATGAATGTATATAAAAGCCTCAACTAGTCA
TTTTTTTCTCCTCTTCTTTTTTTTCATTATATCTAATTATTTTGAGTTGGGCAACAGAGAACCATCCCTATTTT
GTATTGAAGAGGGATTACATCTGCATCTTAACTGCTCTTTATGAATGAAAAACAGTCTCTGTATGTACTCCT
CTTTACACTGGCCAGGGTCAGAGTTAAATAGAGTATATGCACCTTCCAAATTGGGGACAAGGGCTCTAAAAAAG
CCCCAAAAGGAGAAGAACATCTGAGAACCTCCTCGGCCCTCCAGTCCCTCGCTGCACAAATACTCCGCAAGAGA
GGCCAGAATGACAGCTGACAGGGTCTATGGCCATCGGGTCGTCTCCGAAGATTGGCAGGGGCAGAAAACCTCTGG
CAGGCTTAAGATTGGAATAAAGTCACAGAATCAAGGAAGCACCTCAATTTAGTTCAAACAAGACGCCAACATTC
TCTCCACAGCTCACTTACCTCTCTGTGTTTCTAGATGTGGCTTCCATTTATATGTGATCTTTGTTTTATTAGTAAA
TGCTTATCATCTAAAGATGTAGCTCTGGCCAGTGGGAAAAATTAGGAAGTGATTATAAATCGAGAGGAGTTATA
ATAATCAAGATTAAATGTAAATAATCAGGGCAATCCAACACATGTCTAGCTTTCACCTCCAGGATCTATTGAGT
GAACAGAATTGCAATAGTCTCTATTTGTAATTGAACCTATCCTAAAAACAAATAGTTTATAAATGTGAACCTAAA
CTCTAATTAATTCCAACGTACTTTTAAGGCAGTGGCTGTTTTTAGACTTTCTTATCACTTATAGTTAGTAATGT
ACACCTACTCTATCAGAGAAAAACAGGAAAGGCTCGAAATACAAGCCATTCTAAGGAAATTAGGGAGTCAGTTGA
AATTCTATTCTGATCTTATTCTGTGGTGTCTTTTGCAGCCAGACAAATGTGGTTACACACTTTTTAAGAAATAC
AATTCTACATTGTCAAGCTTATGAAGGTTCCAATCAGATCTTTATTGTTATTCAATTTGGATCTTTCAGGGATTT
TTTTTTTAAATTATTATGGGACAAAAGGACATTTGTTGGAGGGGTGGGAGGGAGGAACAATTTTTAAATATAAAC
ATTCCCAAGTTTGGATCAGGGAGTTGGAAGTTTTCAGAATAACCAGAACTAAGGGTATGAAGGACCTGTATTGGG
GTCGATGTGATGCCTCTGCGAAGAACCCTGTGTGACAAATGAGAAACATTTTGAAGTTTGTGGTACGACCTTTAG
ATTCCAGAGACATCAGCATGGCTCAAAGTGCAGCTCCGTTTGGCAGTGCAATGGTATAAAATTCAAGCTGGATAT
GTCTAATGGGTATTTAAACAATAAATGTGCAGTTTAACTAACAGGATATTTAATGACAACCTTCTGGTTGGTAG
GGACATCTGTTTCTAAATGTTTATTATGTACAATACAGAAAAAATTTTATAAAATTAAGCAATGTGAACTGAA
TTGGAGAGTGATAATACAAGTCCCTTTAGTCTTACCCAGTGAATCATTCTGTTCCATGTCTTTGGACAACCATGAC
CTTGGACAATCATGAAATATGCATCTCACTGGATGCAAAGAAAATCAGATGGAGCATGAATGGTACTGTACCGGT
TCATCTGGACTGCCCCAGAAAAATAACTTCAAGCAAACATCCTATCAACAACAAGGTTGTTCTGCATACCAAGCT
GAGCACAGAAGATGGGAACACTGGTGGAGGATGGAAAGGCTCGCTCAATCAAGAAAATCTGAGACTATTAATAA
ATAAGACTGTAGTGTAGATACTGAGTAAATCCATGCACCTAAACCTTTTGGAAAATCTGCCGTGGGCCCTCCAGA
TAGCTCATTTTCATTAAGTTTTTCCCTCCAAGGTAGAATTTGCAAGAGTGACAGTGGATTGCATTTCTTTTGGGA
AGCTTTCTTTTGGTGGTTTTGTTTATTATACCTTCTTAAGTTTTCAACCAAGGTTTGCTTTTGTGTTTGAAGTTACT
GGGGTTATTTTTGTTTTAAATAAAAAATAAGTGTACAATAAGTGTGTTTGTATTGAAAGCTTTTGTATCAAGATT
TTCATACTTTTACCTTCCATGGCTCTTTTTAAGATTGATACTTTTAAAGAGGTGGCTGATATTCTGCAACACTGTA
CACATAAAAAATACGGTAAGGATACTTTACATGGTTAAGGTAAAGTAAGTCTCCAGTTGGCCACCATTAGCTATA
ATGGCACTTTGTTTGTGTTGTTGGAAAAAGTCACATTGCCATTAAACTTTCCTTGTCTGTCTAGTTAATATTGTG
AAGAAAAATAAAGTACAGTGTGAGATACTG

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FIGURE 443

MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDA GDVGAAPPGAAPAPGIFSSQPGHTPHPAASRDPVARTSPLQTP
AAPGAAAGPALSPVPPVVHLALRQAGDDFSRRYRGDFAEMSSQLHLTPFTARGRFATVVEELFRDGVNWGRIVAF
FEFGGVMCVESVNREMSPLVDNIALWMTEYLNRLHHTWIQDNNGGWVGASGDVSLG

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FIGURE 444A

GGAACAGCTTGTCCACCCGCCGGCCGGACCAGAAGCCTTTGGGTCTGAAGTGTCTGTGAGACCTCACAGAAGAGC
ACCCCTGGGCTCCACTTACCTGCCCCCTGCTCCTTCAGGGATGGAGGCAATGGCGGCCAGCACTTCCCTGCCTGA
CCCTGGAGACTTTGACCGGAACGTGCCCCGGATCTGTGGGGTGTGTGGAGACCGAGCCACTGGCTTTCACTTCAA
TGCTATGACCTGTGAAGGCTGCAAAGGCTTCTTCAGGCGAAGCATGAAGCGGAAGGCACTATTACCTGCCCCCTT
CAACGGGGACTGCCGCATCACCAAGGACAACCGACGCCACTGCCAGGCCTGCCGGCTCAAACGCTGTGTGGACAT
CGGCATGATGAAGGAGTTCATTCTGACAGATGAGGAAGTGCAGAGGAAGCGGGAGATGATCCTGAAGCGGAAGGA
GGAGGAGGCCTTGAAGGACAGTCTGCGGCCCAAGCTGTCTGAGGAGCAGCAGCGCATCATTGCCATACTGCTGGA
CGCCCACCATAAGACCTACGACCCACCTACTCCGACTTCTGCCAGTTCGGGCCTCCAGTTCGTGTGAATGATGG
TGGAGGGAGCCATCCTTCCAGGCCCAACTCCAGACACACTCCAGCTTCTCTGGGGACTCCTCCTCCTCCTGCTC
AGATCACTGTATCACCTCTTCAGACATGATGGACTCGTCCAGCTTCTCCAATCTGGATCTGAGTGAAGAAGATTC
AGATGACCCCTTCTGTGACCCCTAGAGCTGTCCAGCTCTCCATGCTGCCCCACCTGGCTGACCTGGTCAGTTACAG
CATCCAAAAGGTCATTGGCTTTGCTAAGATGATACCAGGATTCAGAGACCTCACCTCTGAGGACCAGATCGTACT
GCTGAAGTCAAGTGCCATTGAGGTCATCATGTTGCGCTCCAATGAGTCCTTCACCATGGACGACATGTCCTGGAC
CTGTGGCAACCAAGACTACAAGTACCGCGTCAGTGACGTGACCAAAGCCGGACACAGCCTGGAGCTGATTGAGCC
CCTCATCAAGTTCCAGGTGGGACTGAAGAAGCTGAAGTGCATGAGGAGGAGCATGTCCTGCTCATGGCCATCTG
CATCGTCTCCCCAGATCGTCTGGGGTGCAGGACGCCGCGCTGATTGAGGCCATCCAGGACCGCCTGTCCAACAC
ACTGCAGACGTACATCCGCTGCCGCCACCCGCCCGGGCAGCCACCTGCTCTATGCCAAGATGATCCAGAAGCT
AGCCGACCTGCGCAGCCTCAATGAGGAGCACTCCAAGCAGTACCGCTGCCTCTCCTTCCAGCCTGAGTGCAGCAT
GAAGCTAACGCCCTTGTGCTCGAAGTGTTTGGCAATGAGATCTCCTGACTAGGACAGCCTGTGCGGTGCCTGGG
TGGGGCTGCTCCTCCAGGGCCACGTGCCAGGCCCGGGGCTGGCGGCTACTCAGCAGCCCTCCTCACCCTGCTGGG
GTTAGCCCTCCTCTGCCACCTCCCCCTATCCACCCAGCCATTCTCTCTCCTGTCCAACCTAACCCCTTTCTCTG
CGGGCTTTTCCCCGGTCCCTTGAGACCTCAGCCATGAGGAGTTGCTGTTTGTGTTGACAAAGAAACCAAGTGGGG
GCAGAGGGCAGAGGCTGGAGGCAGGCCTTGCCAGAGATGCCTCCACCGCTGCCTAAGTGGCTGCTGACTGATGT
TGAGGGAACAGACAGGAGAAATGCATCCATTCTCAGGGACAGAGACACCTGCACCTCCCCCACTGCAGGCCCC
GCTTGTCCAGCGCCTAGTGGGGTCTCCCTCTCCTGCCTTACTCAGATAAATAATCGGCCACAGCTCCCACCCC
ACCCCTTTCAGTGCCACCAACATCCCATTGCCCTGGTTATATTCTCACGGGCAGTAGCTGTGGTGAGGTGGGT
TTCTTCCCATCACTGGAGCACCAGGCACGAACCCACCTGCTGAGAGACCAAGGAGGAAAAACAGACAAAAACAG
CCTCACAGAAGAATATGACAGCTGTCCCTGTACCAAGCTCACAGTTCTCGCCCTGGGTCTAAGGGGTGTTGTTG
AGGTGGAAGCCCTCCTTCCACGGATCCATGTAGCAGGACTGAATTGTCCCCAGTTTGCAGAAAAGCACCTGCCGA
CCTCGTCTCCCCCTGCCAGTGCCTTACCTCCTGCCAGGAGAGCCAGCCCTCCCTGTCTCCTCGGATCACCGA
GAGTAGCCGAGAGCCTGCTCCCCACCCCTCCCCAGGGGAGAGGCTCTGGAGAAGCAGTGAGCCGCATCTTCTC
CATCTGGCAGGGTGGGATGGAGGAGAAGAATTTTCAGACCCAGCGGCTGAGTCATGATCTCCCTGCCGCCTCAA
TGTGTTGCAAGGCCGCTGTTACCCACAGGGCTAAGAGCTAGGCTGCCGCACCCAGAGTGTGGGAAGGGAGAGC
GGGGCAGTCTCGGGTGGCTAGTCAGAGAGAGTGTGTTGGGGGTTCGTGATGTAGGGTAAGGTGCCTTCTTATTCT
CACTCCACCACCCAAAAGTCAAAAGGTGCCTGTGAGGCAGGGGCGGAGTGATACTTCAAGTGCATGCTCTCT
GCAGGTGAGCCAGCCAGCTGGTGGGAAGCGTCTGTCCGTTTACTCCAAGGTGGGTCTTTGTGAGAGTGAGCT
GTAGGTGTGCGGGACCGGTACAGAAAGGCGTTCTTCGAGGTGGATCACAGAGGCTTCTTCAGATCAATGCTTGAG
TTTGGAATCGGCCGCATTCCCTGAGTCACCAGGAATGTTAAAGTCAGTGGGAACGTGACTGCCCCAACTCCTGGA
AGCTGTGTCTTGCACCTGCATCCGTAGTTCCCTGAAAACCCAGAGAGGAATCAGACTTCACACTGCAAGAGCCT
TGGTGTCCACCTGGCCCCATGTCTCTCAGAATTCTTCAGGTGGAAAAACATCTGAAAGCCACGTTCCCTTACTGCA
GAATAGCATATATATCGCTTAATCTTAAATTTATTAGATATGAGTTGTTTTAGACTCAGACTCCATTGTATTA
TAGTCTAATATACAGGGTAGCAGGTACCACTGATTGGAGATATTTATGGGGGAGAACTTACATTGTGAACTT
CTGTACATTAATTATTATTGCTGTTGTTATTTTACAAGGTCTAGGGAGAGACCCTTGTTTGATTTTAGCTGCAG
AACTGTATTGGTCCAGCTTGTCTTTCAGTGGGAGAAAAACACTTGTAAGTTGCTAAACGAGTCAATCCCTCATT
CAGGAAAACCTGACAGAGGAGGGCGTGACTACCCAAGCCATATATACTAGCTAGAAGTGGGCCAGGACAGGCCG
GGCGCGGTGGCTCACGCCTGTAATCCCAGCAGTTTGGGAGGTCGAGGTAGGTGGATCACCTGAGGTGCGGAGTTC
GAGACCAACCTGACCAACATGGAGAAACCTGTCTCTATTAATAACAAAAAATAAAAAAATAAAAAAATAGCCG
GGCATGGTGGCGCAAGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGAAGAATTGAACCCAGGAGGTGGAGG

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FIGURE 444B

TTGCAGTGAGCTGAGATCGTGCCGTTACTCTCCAACCTGGACAACAAGAGCGAAACTCCGTCTTAGAAGTGGACC
AGGACAGGACCAGATTTTGGAGTCATGGTCCGGTGTCCTTTTCACTACACCATGTTTGAGCTCAGACCCCCACTC
TCATTCCCCAGGTGGCTGACCCAGTCCCTGGGGGAAGCCCTGGATTTCAGAAAGAGCCAAGTCTGGATCTGGGAC
CCTTTTCCTTCCCTTCCCTGGCTTGTA ACTCCACCAAGCCCATCAGAAGGAGAAGGAAGGAGACTCACCTCTGCCTC
AATGTGAATCAGACCCTACCCACCACGATGTGCCCTGGCTGCTGGGCTCTCCACCTCAGGCCTTGGATAATGCT
GTTGCCTCATCTATAACATGCATTTGTCTTTGTAA TGTCACCACCTTCCCAGCTCTCCCTCTGGCCCTGCTTCTT
CGGGGA ACTCCTGAAATATCAGTTACTCAGCCCTGGGCCCCACCACCTAGGCCACTCCTCCAAAGGAAGTCTAGG
AGCTGGGAGGAAAAGAAAAGAGGGGAAAATGAGTT TTTATGGGGCTGAACGGGGAGAAAAGGTCATCATCGATT
TACTTTAGAATGAGAGTGTGAAATAGACATTTGTAAATGTAAA ACTTTTAAGGTATATCATTATAACTGAAGGAG
AAGGTGCCCCAAAATGCAAGATTTTCCACAAGATTCCCAGAGACAGGAAAATCCTCTGGCTGGCTAACTGGAAGC
ATGTAGGAGAATCCAAGCGAGGTCAACAGAGAAGGCAGGAATGTGTGGCAGATTTAGTGAAAGCTAGAGATATGG
CAGCGAAAGGATGTAAACAGTGCCTGCTGAATGATTTCCAAAGAGAAAAAAGTTTGCCAGAAGTTTGTCAAGTC
AACCAATGTAGAAAGCTTTGCTTATGGTAATAAAAATGGCTCATACTTATATAGCACTTACTTTGTTTGCAAGTA
CTGCTGTAAATAAATGCTTTATGCAAACC

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FIGURE 445

MEAMAASTSLPDPGDFDRNVPRICGVCGDRATGFHFNAMTCEGCKGFFRRSMKRKALFTCPFNGDCRITKDNRRH
CQACRLKRCVDIGMMKEFILTDEEVQRKREMILKRKEEEALKDSLRLKSEEQQRIIAILLDAH HKTYDPTYSDF
CQFRPPVRVNDGGGSHPSRPNSRHTPSFSGDSSSSCSDHCITSSDMMDSSSF SNLDLSEEDSDDPSVTLELSQLS
MLPHLADLVSYSIQKVIGFAKMIPGFRDLTSEDQIVLLKSSAIEVIMLR SNESFTMDDMSWTCGNQDYKYRVSDV
TKAGHSLELIEPLIKFQVGLKKLNLHEEEHVLLMAICIVSPDRPGVQDAALIEAIQDRLSNTLQTYIRCRHPPPG
SHLLYAKMIQKLADLRSLNEEHSKQYRCLSFQPECSMKLTPLVLEVFGNEIS

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FIGURE 446A

ATACAATAGTGCTCCGCGCCGCTCAGCCGCCGCCGCCCAACCGCTGCCAGCGCTGAGGCCTGACGGGCC
GGGCGGACGAGGGCCGAGGGCGGGAGCTGAGGCGCGGGGGCGGCCCGGCGGGGGCGGGGGCGAGGAGGGGAT
TAAGGGGCAGGTGCGAGGGAGGGAAGAGAAGAAAGCGAGCGTTAGGGGGCGGTTACCACTCCGACCGGACTCA
CCCGGCACATTGCCGGGCCGCGCGCTGGAGCCGGGCAGGAGCCGCGAGCCAGCTGCGCGAAGGATGCTCCAGGAT
GAAACGCCATAGGCCTGTCAGCAGCAGTGACAGTTCAGACGAAAGTCCTTCCACTTCCTTTACTTCTGGCTCAAT
GTATAGGATCAAGTCAAAAATTCCAAATGAACACAAGAAACCTGCTGAGGTATTCCGGAAGGACCTCATCAGTGC
CATGAACTTCCAGATTCTCACCACATTAATCCTGATAGCTATTACCTCTTTGCTGATACATGGAAGGAAGAATG
GGAAAAGGGAGTCCAGGTACCAGCCAGTCCAGACACCGTTCCACAGCCTTCTCTCAGGATTATAGCTGAGAAGGT
AAAGGACGTTCTGTTTATCCGACCCCGGAAGTATA TTCACTGCTCCAGCCCAGACACCACAGAGCCTGGCTACAT
CAACATCATGGAGTTGGCAGCATCTGTTTGCCGCTATGACCTAGATGACATGGACATCTTCTGGCTTCAGGAAT
CAATGAAGACCTTGCAAAAATGGGTTGTGGGCCAGTTGATGAGAATCTTATGGAAGACAGTAGAAGTCTGGA
ACGCCATTGCCATGAAAATATGAACCATGCTATTGAGACAGAGGAAGGGCTAGGCATAGAGTATGATGAAGATGT
GATCTGTGATGTGTGCCGGTCTCCAGACAGTGAAGAAGGGAATGATATGGTGTCTGTGATAAGTGTAACTGTG
TGTGCATCAGGCCTGCTATGGCATCTCAAGGTCCCAGAAGGCAGCTGGCTGTGTGCTCCTGTGTCTGGGCAT
TTATCCGCAATGTGTGTTATGTCCAAAGAAAGGTGGAGCCCTGAAGACCACCAAGACAGGGACTAAATGGGCTCA
TGTGAGCTGTGCCCTGTGGATCCCAGAGGTCAGCATTTGCTTGTCTGAGAGGATGGAACCGATCACGAAGATCTC
CCACATCCCACCCAGTCGGTGGGCCTTAGTCTGCAACTTGTGCAAGTTGAAGACGGGGGCTTGTATTCACTGTCTC
TATAAAAAGCTGCATCACTGCCTTCCACGTCACTGTGCTTTGAGCACGGCCTAGAGATGAAGACCATCTTAGA
TGAGGGAGACGAAGTGAAGTTCAAGTCATATTGCC TCAAGCATAGCCAAAACAGGCAGAACTTGGAGAAGCTGA
GTACCCCCACCACAGGGCTAAAGAGCAGAGCCAGGCCAAAAGTGAGAAAACCAGCCTGCGGGCACAGAAGCTTCG
GGAGCTGGAGGAGGAGTTCTATTCTTGGTACGAGTGGAAGATGTGGCCGCAGAGCTGGGTATGCCCACGCTAGC
TGTGGACTTTATCTATAACTACTGAAACTGAAGCGGAAAAGTAACTTCAATAAGCCATTATTTCTCTCAAAGGA
GGATGAAGAAAATGGGCTGGTGCAGCCAAAAGAGGAAAGCATTCACTCGAATGAGAATGTTTATGCATCTACG
CCAGGACCTGGAGAGGGTCCGAAATCTGTGCTATATGATAAGCAGACGAGAGAAGCTGAAGCTGTACACAACAA
AATACAGGAACAGATCTTCGGTTTGGCAAGTCCAGCTTCTTAACCAAGAAATTGATGCAGGGCTTCCTTTGACAAA
TGCATTGAAAACCTCACTGTTTTACCCACCACCAAGAATTACCTTGAAGTTAAAAATGCCCAAATCAACCCAGA
AGACCACAGAAACAGCTCCACAGAAACCGATCAGCAGCCCCACTCTCTGACAGCAGCTCATCTGTTACAGTAT
AAGGAACATGCAGGTGCCCTCAGGAGTCACTAGAAA TGAAGCAAAAATCGTATCCGAGATACCCACTAGAGAGCAA
GAATAACCGTTTGCTGGCCAGTCTCAGCCATTCTAGGAGTGAAGCAAAAGGAGTCCAGTCTGCTTGGAGAACCCC
GTCTCGGAGTGCTATCATGGGCAGTCACTGGGAAAGCCTCTGGTCTTCAGGCTGCCCTCCATGGACAGTCTTC
CATTGGGAATGGGAAAAGTCAGCCTAACTCCAAGTTTGCCAAATCCAATGGCCTGGAGGGCAGCTGGTCTGGGAA
TGTCACCCAAAAGACAGCTCGAGTGAGATGTTCTGTGACCAGGAGCCTGTGTTACAGCCCCACTTGGTCAGTCA
GGCAGCTTTAGAAAATCCACTGTAGAACACTTTAGTAGGTCTTTAAAGAGACCACCAATAGGTGGGTGAAGAA
CACAGAGGACCTCCAGTGCTATGTGAAGCCAACCAAGAATATGAGCCCCAAGGAGCAGTTCTGGGGTAGACAGGT
TCTCAGGCGGTCTGCAGGGAGAGCTCCATATCAGGAAAATGATGGCTATTGCCAGATTGAGGCTGAGTGATTCT
AGAGGCAGAAAGTGATGGGAATAAAGAAAAAGTCAGGGTAAGGAAAGATAGCTCAGACAGGGAAAATCTCCCCA
TGACTCTAGACGGGATTGCCATGGTAAAAGCAAGACATCCCCCTTTCCACAGTTCAATGCAAGGTAGATTAGA
AACTTCCAAGGATGACCCAACCTTTGCCTTTGCCCATATATTGGGGAAAACCCATACACCAAAGGATTTTAGC
ATATGTTAAGAGGAATTGCAGTGAAAAGGATAACATTTTTCCATAGTAAATTGTCTTGCAAGTTTTTGAAAATGTT
TCAAGTCTAGTTTTTACAAGCACATTACAGTAATTGCAGGTTGTCCAGAGGTTGGTTTGTGAGAGGCTATTGGGA
ACAGCTGGGCCCAGGGTATTTGCTCAGTAAATATTTGGGGCAGCTTTCCGGTTATATAACACATTGACAAGTAT
ATGTATTAAGAGTCTTGCATTGTTAACTGATTGCAAGAGACCATGATTATCAGACACTAAACTACTTATCTT
TTGAAGCTACAGCATGTGACTCCCCAGAGCTCCTGTCTGTAGGAAGTTTCTAATTCCACTGGTATCTATAAACCC
TTTTCAGGGGAGAGACCAGGAGACCACCATCTTAGATACTGTCAAACCTCACTACTGTCTTCTTTGTTCTGCACA
AGGTTGAGTTTTCTTTCACAGTATCTTAACCTACTGAGTCAATACTCCTCATGCTTATCAGTGTCCAGTGCCTGTT
TCTAAACTTGCTTGTGTTGGGGACACACTCATAACTATTTACCTGACTGACAAGCATAAAAAGGCTAACTTGTGGAT
AGTGTTTACAAAAGTACAAAAGTACTACTTCCAAGGAAAATGCTCTGATTCTCTGTTTAGGCATTTGTGAAGGAT
TCCAGAGCCTTTCCCAAAGTGAGACCATTTCTGGGGTATTTGTACCAGGTCAGGGTTTTTGTGTTGTTTTCAAAT

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FIGURE 446B

AAGTTTGACTAAAATAAGTTTGGCTGACAGTTTTTGTATACCTGCTTTAATGTTTATAAAATTTTTATTGAGGTA
TAATTAAAATATAGTAAAATGCACAGAGGTTAAGTATTCTTACCTGCTTTAATTTTGAAACAGATTTTTATTGTC
AAACAGAAATTTGAAAGCATGTGTTTAAACACATGGATATAATTTAGCTTTGTGTACCTTTGAATCTGAGGCAGTT
TCCCAAAACAAAAGGCTGGAGCCATTTTTCAGAAGTTGCTTATACCCTGTTCCCAAACATATCAGCCTTGATTAAT
TTCTAGTAGGAAGAGAATAATTACATTTGCGGGGGGGGGGGTGGATAAAAACATGTCTGCTTCTCATTTAAATA
AGAGAGAAATGATGCCGTTTTTTAAATGTGAAGCAGACTATAATTCTCAGCTCTCTTTTCTTCTTAGCCTTAAAT
TAATATTCTCTTTCTTCTAGTTTTGGAAAGTGTAGTGGGAATATTCAGACAAAAGAGGCCATTTTCCATTTTAA
AGCTTCTTACTGGTGAAACAGCCCAGTTGTAGTAGGTGCCAGTCAGTCAAGGCAGGGGCCCTCTCTCCGTCAATA
TGGAAACTCAGCAGTTTTCTCTCCCCAGTTGTGTTCTTGTAACGTTGTTAATGGGTTCTTTGCTTTTTGCT
TTCTCCTTTTCTGAAAATGTATGTGTTTTGCCTCTCTTTTGGCTACATCTTCAAAATATTTCTTTTGTGCCTATG
TACATGTGTAAACATGCCATAGCATGTGTGGTAGGTGTCCTGTATTTTGTGTTGGGAAAAAACTATCAAAATGAG
GAAGAGAATTTCCCCTATTTATGCACTAGGTTTCTGTGCTTTTTCTTTGAGTTCTCTGGAGTAGATATTAATTTG
ATACCTTCATGGTAATGAAATTATGATGGAGCTGTGTTATAAATTCCTTATGTCAGAGGCCAGTGCGGTAGCCTT
TGTCCCTTCATGCCTTTCAATTCTGAGTGGGAGGAAAAGCAAACATCAAAACAGTGCTTCAGCCAAATTCATAT
GTAATGCCATTGGGAGAGTATTGACTAAAATATCATTCGTCAGGGAAAATATAGTTGTAATATTTTACAGGATAT
TCCTAGGTAAATGAAGGAGCCTTCAGTTGTAAATTTCAATTACCCCAAAATGTATTTGCTACATTTTGTGTTTG
AAGTATTACCTCTTAACCTTCTTTGTTAATTTTTTTCATTTTGTCTTATATAGTCCAGTTTTCCAAGATAAGCTC
AGTCCTTTTTCAAATGTCACCTTTTTACCAATACTTTTTCATTAATTAATGAAAACCTGCT

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FIGURE 447

MKRHRPVSSSDSSDESPSTSFTSGSMYRIKSKIPNEHKKPAEVFRKDLISAMKLPDSSHINPDSYLLFADTWKEE
WEKGVQVPASPDTVPQPSLRIIAEKVKDVLFI RPRKYIHCSSPDTEPGYINIMELAASVCRYDLDDMDIFWLQE
LNEDLAEMGCGPVDENLMEKTVEVLERHCHENMNHAIETEEGLGIEYDEDVICDVCRSPDSEEGNDMVFCDKCNV
CVHQACYGILKVPEGSWLCRSCVLGIYPQCVLCPKKGALKTTTKTGKWAHVSCALWIPEVSIACPERMEPI TKI
SHIPPSRWALVCNLCKLKTGACIQCSIKSCITAFHVTCFAFEHGLEMKTILDEGDEVKFKSYCLKHSQNRQKLGEA
EYPHHRAKEQSQA KSEKTS LRAQKLRELEEEFYSLVRVEDVAAELGMPTLAVDFIYNYWKLKRKSNFNKPLFPPK
EDEENGLVQPKEESIHTMRMFHMLRQDLERVRNLCYMISRREKLKLSHNKIQEQIFGLQVQLLNQEIDAGLPLT
NALENSLFYPPPRITLKLKMPKSTPEDHRNSSTETDQQPHSPDSSSSVHSIRNMQVPQESLEMRTKSYPRYPLES
KNNRLLASLSHSRSEAKESSPAWRTPSSECYHGQSLGKPLVLQAALHGQSSIGNGKSQPNKFAKSNGLEGSWSG
NVTQKDSSEMFCQEPVFSPHLVSQGSFRKSTVEHF SRSFKETTNRWVKNTEDLQCYVKPTKNMSPKEQFWGRQ
VLRRSAGRAPYQENDGYCPDLELSDSEAESDGNKEKVRVRKDSSDRENPPHDSRRDCHGKSKTHPLSHSSMQR

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FIGURE 448

CGCCTCTCCCAAAGTCTAGCCGGGCAGGGGAACGCGGTGCATTCTGACCGGCACCTGGCGAGGCTCATGCGTCC
CGTGAGGGGCGGTTCTCGAGCCTGGGGGCGCTCAGATTGCTTTGGAGACGCTGAGAGAACCTTTGCGAGAGCGCC
GGTTGACGTGCGGAGTGCGGGGCTCCGGGGGACTGAGCAGCACGAGACCCATCCTCCCCTCCGGGTTTTACAC
TGGGCGAAGGGAGGACTCCTGAGCTCTGCCTCTTCCAGTAACATTGAGGATTACTGTGTTTTGTGAGAGCTCGCT
AGGCGCCCTAAGCAACAGAGTTCTGAGAAATCGAGAAACATGATAAGGAATTGGCTGACTATTTTTATCCTTTTT
CCCCTGAAGCTCGTAGAGAAATGTGAGTCAAGCGTCAGCCTCACTGTTCTCCTGTCTGTAAGCTGGAGAACGGC
AGCTCGACCAACGTCAGCCTCACCTGCGGCCACCATTAATGCAACCCTGGTGATCACTTTTGAAATCACATTT
CGTTCCAAAAATATTACTATCCTTGAGCTCCCCGATGAAGTTGTGGTGCTCCTGGAGTGACAACTCCTCTTTT
CAAGTGACATCTCAAAATGTTGGACAACCTTACTGTTTATCTACATGGAAATCACTCCAATCAGACCGGCCGAGG
ATACGCTTTCTGTGATCCGCAGCAGCGCCATTAGCATCATAAACCAGGTGATTGGCTGGATCTACTTTGTGGCC
TGGTCCATCTCCTTCTACCCTCAGGTGATCATGAATTGGAGGCGGAAAAGTGTGATTGGTCTGAGCTTCGACTTC
GTGGCTCTGAACCTGACAGGCTTCGTGGCTACAGTGTATTCAACATCGGCCCTCCTCTGGGTGCCCTACATCAAG
GAGCAGTTTCTCCTCAAATACCCCAACGGAGTGAACCCCGTGAACAGCAACGACGTCTTCTCAGCCTGCACGCG
GTTGTCTCAAGCTGATCATCATCGTGCAGTGCTGCCTGTATGAGCGCGGTGGCCAGCGCGTGTCTGGCCTGCC
ATCGGCTTCTGGTGCTCGCGTGGCTCTTCGCATTGTGACCATGATCGTGGCTGCAGTGGGAGTGATCACGTGG
CTGCAGTTTCTCTTCTGCTTCTCCTACATCAAGCTCGCAGTCACGCTGGTCAAGTATTTTCCACAGGCCTACATG
AACTTTTACTACAAAAGCACGTGAGGGCTGGAGCATTTGGCAACGTGCTCCTGGACTTCACCGGGGGCAGCTTCAGC
CTCCTGCAGATGTTCTCCTCCAGTCTTACAACAACGACCAGTGGACGCTGATCTTCGAGACCCAACCAAGTTTGA
CTCGGGGTCTTCTCCATCGTCTTCGACGTGCTCTTCTCATCCAGCACTTCTGTTTGTACAGAAAGAGACCGGGG
TATGACCAGCTGAACTAGCACCCAGGGACCCAGTGTACCCAGCCTCTGGCCTCGTGCCCTGCTGGGGAAGGCCCTC
ACCCAGCGAAGGCCGGAGAGCGGTTGGGCCCTGGCACACAGGGCTGGCTCAGTGTGCGGACAGAGGAGACCACT
CTGCTCCTGGGGCCAGAGGCCATTCAATAGCCTGCCTTCGTCCGGGCCCCCTCCTGGGCCTCCCCGGCCAGGCACG
TGGCACCGTCGCCTTGACACCGCCATCTCTTTCTTTAAGGCTTCAGGCAGCGCGCACAGGCTCTGGCAGCCGTC
TCAGGCAGGACTGGGCACCAAGCTTGACGCCGAAGGCCTTGCCCCAACTACCAGCGTTTCTGCAAGCAGCTTGA
AGGGCTGACCTTGACGCCGGGTGAGCCAAGGGCACTTTGCTGCCACCGCTGCATTCCCAGAGATCAAGCAGCCCG
GTGCCGTGGCCAGTGAACCTCAGAGGTGCTGGTGGACGGGCTAGGACTTTGGGGTTAGGCCATGGGGCTCTTTCTC
TGAAGGCCACTTTCTGACGTACTCTCTGTACATAACTCAGCGTCCGTGACTGCAGTAACAGCCAGCCCTACCCA
GAGTATTTCTGAGCCATGAGGGGGCCACCAGATTGGTTCTGAATTGGATTGATGCCAGCGCATTAGCATAGTAA
CTCCTTTTCAATTTTTTGGAGGGACGTTTGAAGTGGCTTACTCTCTTCTGCCCTCTCTCCTACCTCCACCTTCT
CAGATGAGCCCCATCTGAGCACATCCAGCTGCTCCTTACCCAGCATCTGGAGTACAGGACATAGCTCTCTCCTGC
TACCAGTCTGTGCCTTAGAGGTGCTTAGGCCTGCCAAACGGCGACCAGCTCCCCTGGAGCGAGGGCAGGCCCTT
CCCTCTCTTTCCCCAGACACCTACTTGAGACTACCAATTTCTGGCCTGTTTCAAGGACCTCAGATAAGTATTTGT
ACTTGAGACCACCTCACACAATCTGTATGGGCCCAACCCTGATCTCAAACCTCCTTCCCTCTGCCCAAAGCTGTC
CTTCTATGGCAGGAGGGGTGGGGGTCCCAGGACGTGCCTCATACATGACTTGAGCTTGTGAGTCCACTGAGTTT
CCTTCTACGAGATCAACGCGAGGGGGCTGTATCTTGAATTAAAGCCTACTCGCTTCCTTTT

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FIGURE 449

MIRNWLTI FILFPLKLVEKCESSVSLTVPPVVKLENGSSTNVSLTLRPPLNATLVITFEITFRSKNITILELPDE
VVVPPGVTNSSFQVTSQNVGQLTVYLHGNHNSQTGPRIREFLVIRSSAISIIINQVIGWIYFVAWSISFY PQVIMNW
RRKSVIGLSFDFVALNLTGFVAYS VFNIGLLWVPYIKEQFLLKYPNGVNPVNSNDVFFSLHAVVLTIIIVQCCL
YERGGQRVSWPAIGFLVLAWLFAFVTMIVA AVGVI TWLQFLFCFSYIKLAVTLVKYFPQAYMNFYKSTEGWSIG
NVLLDFTGGSFSLQMFLQSYNNDQWTLIFGDPTKFGLGVFSIVFDVVFFIQHFCLYRKRPGYDQLN

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FIGURE 450A

GCGCGCGGGCAGCTCACTTCCGCCCCGGCAGGTGACAGCCGCGGGGCTCCGAGCCGCCGGCAGCCCGGACGCACCG
GGAGAGCGAGAGGTGGAGGCCCGCGGACATTTTGGTGCCAAGCCGAACCGAGCCGGGGCGCCGGGAGCTATTGGGA
CCTGCGGAAGCCTGGCTACAGATAAGGGACCAAAATGACTGACTCAAAATATTTTACCACGACCAAGAAAGGGGA
GATCTTCGAGCTGAAGGCAGAGCTCAACAGTGACAAGAAGGAGAAGAAGAAGGAGGCAGTGAAGAAAGTGATTGC
ATCGATGACCGTGGGCAAAGATGTCAGTGCCCTCTTCCCCGATGTGGTCAACTGCATGCAGACGGACAACCTGGA
GCTGAAGAAGCTAGTATACCTCTACTTGATGAATTACGCCAAGAGTCAGCCTGACATGGCCATTATGGCCGTCAA
CACCTTTGTGAAGGACTGTGAGGACCCCAACCCCTCATCCGAGCCCTGGCAGTGCGGACCATGGGCTGCATCCG
CGTTGACAAGATCACAGAGTACCTGTGCGAGCCACTCCGGAAGTGCCTGAAGGACGAGGATCCATATGTGCGCAA
GACAGCAGCTGTGTGCGTGGCCAAGCTCCACGACATCAACGCCAGCTGGTGGAGGACCAGGGCTTCCTGGACAC
CCTTAAAGACCTCATCTCCGACTCTAACCCCATGGTGGTGGCCAATGCAGTGGCAGCGCTCTCAGAAATTGCCGA
GTCTCACCCAGCAGCAACCTGCTCGATCTGAACCCACAGTCCATCAACAAGCTGCTGACAGCCCTCAATGAGTG
CACCGAGTGGGGCCAGATCTTCATCCTGGACTGCCCTCGCCAATATATGCCCAAGGACGACCCGCGAGGCCAGAG
CATCTGTGAGCGGGTCAACCCAGGCTCTCCCATGCCAACTCCGCTGTGGTGTCTCTGCTGTGAAGGTGCTGAT
GAAGTTCATGGAGATGTTGTCTAAGGACTTGGACTACTACGGCACACTGCTCAAGAAGCTGGCCCCACCCCTGGT
CACACTGCTGTGAGCCGAGCCAGAGCTGCAGTATGTGGCCCTGCGCAACATCAATCTCATCGTGCAGAAAAGGCC
TGAGATCCTGAAGCATGAGATGAAGGTGTTCTTCGTGAAGTACAACGACCCTATCTACGTGAAGCTGGAGAAGCT
GGACATCATGATCCGCTGGCCTCTCAGGCCAACATCGCCAGGTGTTGGCAGAGCTGAAAGAGTACGCAACAGA
AGTGGATGTGGAAGCTTTGTACGGAAGGCTGTGCGTGCTATTGGCCGCTGCGCCATCAAGGTGGAGCAATCTGCGGA
GCGCTGTGTGAGCACGCTGCTCGACCTCATCCAGACCAAGGTCAACTATGTGGTCCAGGAGGCCATCGTGGTCAT
CAAGGACATCTTCCGCAAGTACCCCAACAAGTATGAGAGTGTGATTGCCACACTGTGTGAGAATCTGGACTCCCT
GGATGAGCCTGAGGCCCGGGCTGCCATGATCTGGATTGTGGGCGAGTACGCGGAACGGATCGACAACGCAGATGA
GCTGCTGGAGAGCTTCTCGAGGGCTTCCATGACGAGAGCACACAGGTCCAGCTGCAGCTGCTGACAGCCATTGT
GAAACTCTTTCTAAAGAAGCCAACAGAGACCCAGGAGCTGGTGCAGCAGGTCTCTCAGTTTGGCCACTCAGGACTC
AGATAACCCAGACCTGCGGGACCGTGGCTACATCTACTGGCGCCTGCTGTCCACGGACCCGGTGGCAGCCAAGGA
GGTGGTGTGGCTGAGAAGCCACTCATCTCTGAAGAGACGGACCTCATCGAGCCACACTGTTAGACGAGCTTAT
CTGCTACATCGGCACGCTGGCTTCCGTCTACCATAGCCTCCAGTGCCCTTGTGGAGGGGGGCGGGGCGTCTGT
GCACAAGAGCCTGCCACCTCGCACGGCCTCGAGTGAGAGCGCAGAGAGCCCTGAGACAGCCCTACTGGAGCACC
TCCTGGGGAGCAGCCAGATGTCTATCCCCGCCAGGGCGACCTGCTGGGTGACCTCCTCAACCTGGACCTCGGCCC
CCCAGTGAGCGGGCCACCCCTGGCCACCTCCTCGGTGCAGATGGGAGCTGTGGACCTTCTTGGCGGTGGCCTTGA
CAGCCTGATGGGGGATGAGCCTGAAGGGATTGGGGGCACCAACTTCGTGGCACCTCCAACAGCAGCAGTACCAGC
CAATCTTGGAGCACCCATCGGCAGTGGCCTGAGTGACCTCTTTGACCTGACCAAGTGGCGTGGGCACCCCTGTCAGG
ATCATATGTGGCCCCAAAGCAGTCTGGCTCCCAGCCATGAAGGCTAAGGGGCTGGAGATCTCAGGCACCTTCAC
CCGCCAGGTGGGCTCCATCTCCATGGACCTGCAGCTGACCAACAAGGCCTTGCAAGTTCATGACCGACTTTGCCAT
CCAGTTCAACCGCAACAGCTTTGGCCTGGCCCCCGCCACCCCTCCAGGTCCACGCGCCACTCAGCCCCAACCA
GACAGTGGAGATCTCCCTGCCTCTCAGCACGGTGGGCTCGGTCTATGAAGATGGAGCCTCTGAACAACCTCCAGGT
GGCCGTGAAGAACAACATCGATGTCTTCTACTTCAGCACCTTGTACCCACTGCACATCCTCTTTGTGGAGGACGG
GAAGATGGACCGGCAGATGTTCTGGCCACATGGAAGGATATTCCCAATGAGAATGAGGCCAGTTCCAGATCAG
AGACTGCCCCCTCAATGCAGAGGCTGCGAGCAGCAAGCTGCAGAGCAGCAACATCTTCACTGTGCGCAAGAGGAA
CGTGGAGGGCCAGGACATGCTCTACAGTCCCTGAAGCTGACCAACGGCATCTGGGTGCTGGCGGAGCTGCGGAT
CCAGCCGGGCAACCCAGCTGCACGGACTTAGAGCTGTCCCTGAAGTGTGAGCACCAGAGGTGTCCAGCACGT
GTACCAGGCCTACGAGACCATCTCAAGAAGTGAAGACCCCGGCCAGCGCCACCCAGCCTTCTGCCC GCCCAT
CGAGGAGGCCCTCGGGGGCAGCACATCTTCTCCCTCGCAGGAGGGACCAGGCGGGGCTCCAGGCCACTCAGTGG
GCTCCCTGGTCTGATGGCAGAACCCACCCGATCCCTGGGGTAGGGACCACCCCTCTGCGGTGAGAGCGCAG
TGCACCTCCCGTGTCTGAGGACACCCCTGCTCCTGTGGCTGTGATGTGGGGTTAAGTGAGGTGGGGACCAAGGAA
ACAGAGCCAGAGCAGCCACAGAAGCTGTGCCTGAAGGGTGAGTGTGGAGCTTGCCCTCCGGCTCACAGCCCCGG
CAGCCCCCTGGCTCCTTGGTCTCTCCGGTTGGTGTAAAGGGCCCTCCACTGCCACCTCTCATGGGATGGACCTG
CCAACCTGGCCTGGGTGTGAGGGAGGGGTTCCCCTTGGTACCAGGAGAGCTGCTCACTTAGGGCTGGGGCTCA
AGGAGCTGTAGGTGCCGGCAGAGGGGCAGAGCTAGGCTGGGAGGAGCCAGGGCCTGCACCACCCACTTGCAACC

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FIGURE 450B

ACCAGGCTGGTGCCCTGCAGCTGTGCCAGTTGGGCCACAGCCTCCCGAGTGCTGACCCACATGGTCAAGACCAGG
CAGAAGCTCCCAGAGCCCCTGTCTCGGGCTCCCCACCGACTGGCAGCTGCACTATCCCCAACTCCCCACTTCTGC
CCCAAGGGTGGTCACTGCCTGTGATACATTCCCTCAGTGTGCGCTCTGAGCCCAGGCCTCCTGCCACAAAGACTGG
GCCGAGAGATGGGGCTGGGTAAGCGGGTGCGCCTCCTGTTTGGGTTTCTTCGGGGTTTCTCTGTAGTGTCTGCTG
CCCTCCTCCTGGCCTCCCAGGTTTTCAGTTGTGTCTGACAGAGCATTAGGTTTTCTGTACTGCTGTGTAATAAT
AAAGAAAGATTTCGGCTTTTGGCAATCACGGACACTTTTTTCCCCTCCACCGAATGTCAGGATTGAAAGCTGCCTC
CGAGTGGTTGGGGATGGTTTTCTGACCCTACGGTAACTAGATCTAATATATATCATCAGAAAATATATATTGTAT
GTTTACTCTTATTTTCAGAAAGAGAAAATGAATAAAAATGATGACATCAA

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FIGURE 451

MTDSKYFTTTKKGEIFELKAELNSDKKEKKKEAVKKVIASMTVGKDVSAFPDVVNCMQTDNLELKKLVYLYLMN
YAKSQPDMAIMAVNTFVKDCEDPNPLIRALAVRTMGCIRVDKITEYLCEPLRKCLKDEDPYVRKTAAVCVAKLHD
INAQLVEDQGFLDTLKDLSDSNPMVVANAVAALSEIAESHPSNLLDLPQSINKLLTALNECTEWGQIFILDC
LANYMPKDDREAQSI CERVTPRLSHANSVVL SAVKVLKFMEMLSKDL DYYGTLLKKLAPPLVTLLSAEPELQY
VALRNINLIVQKRPEILKHEMKVFFVKYNDPIYVKLEKLDIMIRLASQANIAQVLAELKEYATEVDVDFVRKAVR
AIGRCAIKVEQSAERCVSTLLDLIQTKVNYVVQEAIVVIKDI FRKYPNKYESVIATLCENLDSLDEPEARAAAMIW
IVGEYAERIDNADELLESFLEGFHDESTQVQLQLLTAIVKLFLLKPTTETQELVQQVLSLATQSDNPDLRDRGYI
YWRLLSTDPVAAKEVVLAEKPLISEETDLIEPTLLDELICYIGTLASVYHKPPSAFVEGGRGVVHKSLPPRTASS
ESAESPETAPTGAAPPGEQPDVIPAQGDLLGDLNLDLGPPVSGPPLATSSVQMGAVDLLGGGLDSLMDGDEPEGIG
GTNFVAPPTAAVPANLGAPIGSGLSDLFDLTSGVGTLSGSYVAPKAVWLPAMKAKGLEISGTFTRQVGSISMDLQ
LTNKALQVMTDFAIQFNRRNSFGLAPAAPLQVHAPLSPNQTVETISLPLSTVGSVMKMEPLNNLQVAVKNNIDVFYF
STLYPLHILFVEDGKMDRQMF LATWKDIPNENEAQFQIRDCPLNAEAASSKLQSSNIFTVAKRNVEGQDMLYQSL
KL TNGI WVLAE LRIQPGNP SCTDLELSLK CRAPEVSQH VYQAYETILKN

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FIGURE 452

AAATGCACAACCCGGACGGAAGTGCCTCTCCGACAGCAGATCCAGGCTCGGAGCTCCAGACGCTGGGACAGGCCG
CCCGCAGACCACCCCGCCGCGCGCGGGACACGACGCCCCCGCAGGACACGCCCATCAGCCCGGAAACCCCTGA
GCTGCTTCTCCCGGAGGCCGATGCCCACCCGGGAGCCCCAAAGACTCGCGGCTCCCGGGGGCACCTGCATACTC
ACCCGCTTGGGCCTGGGCCCCCGCTGCAGGGACTGGCGCCCCGAGGCCTCAAAACCAGCGCCCCCGCCCTCCGT
GCCAGCCCCAGCCGGGACCCCAAGGCAAAGACCAAGAAGATTGTGTTTGAGGATGAGTTGCTCTCCCAGGCC
TCCTGGGCGCCAAGAAGCCTATTGGAGCCATCCCTAAGGGGCATAAGCCTAGGCCCCACCCAGTGCCCGACTATG
AGCTTAAGTACCCGCCAGTGAGCAGTGAGAGGGAACGGAGCCGCTATGTCGCAGTGTTCCAGGACCAGTACGGAG
AGTTCTTGAGCTCCAGCACGAGGTGGGGTGTGCACAGGCAAAGCTCAGGCAGCTGGAGGCCCTGCTGAGCTCCC
TGCCCCCACCCCAAAGCCAGAAGGAGGCCCAAGTTGCAGCCCGGGTTTGGAGGGAGTTTGAGATGAAGCGAATGG
ATCCTGGCTTCCTGGACAAGCAGGCTCGCTGCCACTACCTGAAGGGTAAACTGAGGCATCTCAAGACTCAGATCC
AGAAATTCGATGACCAAGGAGACAGCGAGGGCTCCGTGTACTTCTAAAGTGCCCTGCAGATGGGCAGAGGGATGC
ATGGGGATGCAGGTCCCTTGCAATTTCTTGGTATCTCTCAGCTTTTCTCTTGAGCTCCCCCTACCAGGGGTGCG
TTTCTCCTGGATTGCAAATGCCTCTTCAGTTTGGACTCAGCTCTGACAGCCCCTCCTCCAGGAAGGCCTTCCAGG
ACTTCCTCCTCTGGGTCTCTAGCTCTGACCCTACAGGGACTCCAGATCTCAACCTGTTCCCTGGAAGTAGGGCC
TGCTCTCCATCCCAGTGAAATAAACATGTATTAGACACCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 453

MHNPDGSASPTADPGSELQTLGQAARRPPPPRAGHDAPRRTRPSARKPLSCFSRRPMP TREPPKTRGSRGHLHTH
PPGPGPPLQGLAPRGLKTSAPRPPCQPQPGPHKAKTKKIVFEDELLSQALLGAKKPIGAIPKGHKPRPHVPDYE
LKYPVSSERERSRYVAVFQDQYGEFLELQHEVGCAQAKLRQLEALLSSLPPPPSQKEAQVAARVWREFEMKRMD
PGFLDKQARCHYLKGKLRHLKTQIQKFDDQGDSEGSVYF

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FIGURE 454

ACTTCTGACAGTGGGGAAAGCAGCTGTGTGTGATAGCTTGGAAAGGTTTACTGCTGCCTCAAGTCCCTCTTCTCTGC
AGTTGAGGTTTCAGGTTTCAATCCTCCCAATACCACAAGACAGAGCACGGGGCGGCTGCCGCCTCCGCCTCCGCG
CCTTAACCTAGGCGGCTTGCCGAAGATCTCAGCCCCGCGGCCGCGCGCTCGCCCTGCCCTAGACCAGGGTTGGGC
GCAGCGGCGGAGGTGGCTTCTGGGCTGCGCGAGCTGGGAGAGCTGGGAGGCGGCGATCGCAGCTGGGCCGGGACT
TCCTTCCTCCACCGCACGGCAACAAAACAACCCTGCGGCAGGCACTGAGTGCTTCGCAGCTGTCTGGGCGAGAGG
CACAGCGATGGGCTCCGTGCTGAGCACCGACAGCGGCAAAATCGGCGCCCGCCTCTGCCACCGCGCGGGCCCTGGA
GCGCAGGAGGGACCCGGAGTTGCCCGTCACGTCTTCGACTGCGCCGTGTGCCTTGAGGTGTTACACCAGCCTGT
CCGGAACCGCTGCGGCCACGTATTCTGCCGTTCTGTATTGCTACCAGTCTGAAGAACAACAAGTGGACCTGTCC
TTATTGCCGGGCATATCTTCCTTCAGAAGGAGTTCCAGCAACTGATGTAGCCAAAAGAATGAAATCAGAGTATAA
GAACTGCGCTGAGTGTGACACCCTGGTTTGCCTCAGTGAAATGAGGGCACATATTCGGACTTGTGAGAAGTACAT
AGATAAGTATGGACCACTACAAGAACTTGAGGAGACAGCAGCAAGGTGTGTATGTCCCTTTTGTGAGAGGAACT
GTATGAAGACAGCTTGCTGGATCATTGTATTACTCATCAGATCGGAACGGAGGCCTGTGTTCTGTCCACTTTG
CCGTTTAATACCCGATGAGAATCCAAGCAGCTTCAGCGGCAATTTAATAAGACATCTGCAAGTTAGTCACACTTT
GTTTTATGATGATTTTCATAGATTTTAATATAATTGAGGAAGCTCTTATCCGAAGAGTCTTAGACCGGTCACCTCT
TGAATATGTGAATCACTCGAACACCACATAAATTTTATTAACGAAGGGAAAAGGGACCACTGAATTGCACCATT
TAAGATGCTGCTTGAACAAATGGGAGGGAAGTTGTCAATGATTGATGGGCAAAAATGTACAACACAGTTATGTGT
TTGTCCATGTTTATGTTATAGTGCATTTAAAAACTGCTTTAATTTAATGGTTTAAATCTGTTTTACATCCTTG
AGATTCTTACACATCTAACAACAAAAAAATTATCTACATCAGTCATTGTTACATGGAAAAGACAGGTGGTAGGC
AAGTAGGTGGAGGATCTCGGTTTGCAAATTAGATAATACTCTGTGTATAATGCTACATATCAATAACTACCATCA
TGGTTAGGCACGATAACTAATCTTTGTTCTGTGTAAAAAATATGGAGAGTGAAACAAAGTGCAGACATTCAAAG
AAATAAGAAATCTGCTCCAATGCTCTTGTCTAATCTCTAATAGGTTAACGTTAATAATCTTGTATGGGAGTTGG
AAAGGAAAAATTTTGGAAAGTCAAGAAAGTCCATTTAGGCCGGACGCGGTGGCTTACGCTTGTAGTCCCAGCACTTT
GGGAGGCTGAGGCAGGCGGATCACAGGGTCGGGAGTTTCGAGACCAGCCTGGCCAACACTGGTCTCTGTGAAACTC
CGTCTCTACTGAAAAATGCAAAGATTGGCTGGACGTGTTGGCGGGCATCTGTGATACCAGCTACTTGGGAGGCTGA
GGCAGAAGAATCGCTTGAGCCCGGGAGGCGGAGGTTGCAGTGAGCTGAGATCGCGCCAGTACACTCCAGCCTGGG
TAACAGAGCTAGACTCCATCTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 455

MGSVLSTDSGKSAPASATARALERRRDPELPVTSFDCAVCLEVLHQPVRTRCGHVFCRSCIATSLKNNKWTCPYC
RAYLPSEGVPATDVAKRMKSEYKNCAECDTLVCLSEMPRAHIRTQKYIDKYGPLQELEETAARCVCPCQRELYE
DSLDDHCITHHRSERRPVFCPLCRLIPDENPSSFSGNLIRHLQVSHTLFYDDFIDFNIIEEALIRRVLDRLLEY
VNHSNTT

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FIGURE 456

GCCGCCAGCGGCTTTCTCGGACGCCTTGCCAGCGGGCCGCCCGACCCCTGCACCATGGACCCCGCTCGCCCC
TGGGGCTGTCGATTCTGCTGCTTTTCCTGACGGAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATA
ACGCGGAGATCTGTCTCCTGCCCCTAGACTACGGACCTGCCGGGCCCTACTTCTCCGTTACTACTACGACAGGT
ACACGCAGAGCTGCCGCCAGTTCCTGTACGGGGGCTGCGAGGGCAACGCCAACAATTTCTACACCTGGGAGGCTT
GCGACGATGCTTGTGGAGGATAGAAAAAGTTCCCAAAGTTTGCCGGCTGCAAGTGAGTGTGGACGACCAAGTGTG
AGGGGTCCACAGAAAAGTATTTCTTTAATCTAAGTTCCATGACATGTGAAAAATTCTTTCCGGTGGGTGTCACC
GGAACCGGATTGAGAACAGGTTTCAGATGAAGCTACTTGTATGGGCTTCTGCGCACCAAGAAAATTCCATCAT
TTTGCTACAGTCCAAAAGATGAGGGACTGTGCTCTGCCAATGTGACTCGCTATTATTTTAATCCAAGATACAGAA
CCTGTGATGCTTTCACCTATACTGGCTGTGGAGGGAATGACAATAACTTTGTAGCAGGGAGGATTGCAAACGTG
CATGTGCAAAAGCTTTGAAAAAGAAAAAGAAGATGCCAAAGCTTCGCTTTGCCAGTAGAATCCGGAATAATTCGGA
AGAAGCAATTTTAAACATTCTTAATATGTCATCTTGTTTGTCTTTATGGCTTATTTGCCTTTATGGTTGTATCTG
AAGAATAATATGACAGCATGAGGAAACAAATCATTGGTGATTTATTCACCAGTTTTTATTAATACAAGTCACTTT
TTCAAAAATTTGGATTTTTTTATATATACTAGCTGCTATTCAAATGTGAGTCTACCATTTTTAATTTATGGTTC
AACTGTTTGTGAGACGAATTCTTGCAATGCATAAGATATAAAAGCAAATATGACTCACTCATTTCTTGGGGTCGT
ATTCTGATTTTCAAGAGGATCATAACTGAAACAACATAAGACAATATAATCATGTGCTTTTAACATATTTGAG
AATAAAAAGGACTAGCC

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FIGURE 457

MDPARPLGLSILLFLTEAALGDAAQEPTGNNAEICLLPLDYGPCRALLRYYYDRYTQSCRQFLYGGCEGNANN
FYTWEACDDACWRIEKVPKVCRLQVSVDQCEGSTKEYFFNLSSMTCEKFFSGGCHRNRIENRFPDEATCMGFCA
PKKIPSFYCYSKDEGLCSANVTRYFNPRTCDFTYTGCGGNDNNFVSREDCKRACAKALKKKKKMPKLRFAS
RIRKIRKKQF

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FIGURE 458

ATGTCAGCCCCACTGGATGCCGCCCTCCACGCCCTTCAGGAGGAGCAGGCCAGACCGCCCTCCACGCCCTTCAGG
AGGAGCAGGCCAGACTCAAGATGAGGCTGTGGGACCTGCAGCAGCTGAGAAAGGAGCTCGGGGACTCCCCAAAG
ACAAGGTCCCATTTTCAGTGCCCAAGATCCCCCTGGTATTCCGAGGACACACCCAGCAGGACCCGGAAGTGCCTA
AGTCTTTAGTTTCCAATTTGCGGATCCACTGCCCTCTGCTTGCGGGCTCTGCTCTGATCACCTTTGATGACCCCA
AAGTGGCTGAGCAGGTGCTGCAACAAAAGGAGCACACGATCAACATGGAGGAGTGCCGGCTGCGGGTGCAGGTCC
AGCCCTTGAGCTGCCCATGGTCACCACCATCCAGGTGATGGTGTCCAGCCAGTTGAGTGGCCGGAGGGTGTTGG
TCACTGGATTTCTTGCCAGCCTCAGGCTGAGTGAGGAGGAGCTGCTGGACAAGCTAGAGATCTTCTTTGGCAAGA
CTAGGAACGGAGGTGGCGATGTGGACGTTTCGGGAGCTACTGCCAGGGAGTGTCATGCTGGGGTTTGCTAGGGATG
GAGTGGCTCAGCGTCTGTGCCAAATCGGCCAGTTCACAGTGCCACTGGGTGGGCAGCAAGTCCCTCTGAGAGTCT
CTCCGTATGTGAATGGGGAGATCCAGAAGGCTGAGATCAGGTGCGCAGCCAGTTCCTCCGCTCGGTACTGGTGCTCA
ACATTCCGTGATATCTTGATGGCCCGGAGCTGCATGACGTCCTGGAGATCCACTTCCAGAAGCCCACCCGCGGGG
GCGGGGAGGTAGAGGCCCTGACAGTCGTACCCCAAGGACAGCAGGGCCTAGCAGTCTTCACCTCTGAGTCAGGCT
AGGGGCCTCCCCCTTCTCATCCTCCCCACCCCCCGCAAGGTTCTCACACTGGCCTGGGCTTGGGTGCCCATATA
GGAGGTCTGTATGTTACCAACAGTGCGGAGGGGTACACATTGCAAAACACTGCCCAGAACAGTAAAAAGAGCC
TGCATGCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 459

GGCACGAGGGCGACCGCTCCCCGGCGGGAGCCAGCGAAGGTTTCCATGTCAGAGGCCGATGGAGAACTGAAGATT
GCCACCTACGCACAAAGGCCATTGAGACACTTCGTGTAGCTGGAAGACACCAACTTCCTGACAGGAGCTTTATTT
CATTTGGGATTTCAAGTTTACAGATGGTATCTTCTCAAAAGTTGGAAAAACCTATAGAGATGGGCAGTAGCGAAC
CCCTTCCCATCGCAGATGGTGACAGGAGGAGGAAGAAGAAGCGGAGGGGCCGAGGCTGACTCCTTGCCAGGAA
AGTTTGAAGATATGTACAAGCTGACCTCTGAATTGCTTGGAGAGGGAGCCTATGCCAAAGTTCAAGGTGCCGTGA
GCCTACAGAATGGCAAAGAGTATGCCGTCAAATCATCGAGAAACAAGCAGGGCACAGTCGGAGTAGGGTGTTC
GAGAGGTGGAGACGCTGTATCAGTGTGAGGAAACAAGAACATTTTGGAGCTGATTGAGTTCTTTGAAGATGACA
CAAGGTTTTACTTGGTCTTTGAGAAATTGCAAGGAGGTTCCATCTTAGCCACATCCAGAAGCAAAGCACTTCA
ATGAGCGAGAAGCCAGCCGAGTGGTGCGGGACGTTGCTGCTGCCCTTGACTTCCTGCATACCAAAGACAAAGTCT
CTCTCTGTACCTAGGCTGGAGTGCTATGGCGCCATCAGGGCTCACTGCAGCCCCAACCTCCCTGGGCTCCAGTG
ATCCTCCACCTCAGCTCCCAAGTAGCTGGGACTACAGGCATTGCTCATCGTGATCTGAAACCAGAAAATATAT
TGTGTGAATCTCCAGAAAAGGTGTCTCCAGTGAATCTGTGACTTTGACTTGGGCAGTGGGATGAACTGAACA
ACTCCTGTACCCCCATAACCACACCAGAGCTGACCACCCCATGTGGCTCTGCAGAATACATGGCCCTGAGGTAG
TGGAGGTCTTCACGGACCAGGCCACATTCTACGACAAGCGCTGTGACCTGTGGAGCCTGGGCGTGGTCTCTACA
TCATGCTGAGTGGCTACCCACCCCTTCGTGGGTCTACGCGGGCCGACTGTGGCTGGGACCGGGCGAGGTCTGCA
GGGTGTGCCAGAACAAGCTGTTTGAAAGCATCCAGGAAGGCAAGTATGAGTTTCTGACAAGGACTGGGCACACA
TCTCCAGTGAAGCCAAAGACCTCATCTCCAAGCTCTGGTGCAGATGCAAAGCAGAGACTTAGCGCCGCCAAG
TTCTGCAGCACCCATGGGTGCAGGGGCAAGCTCCAGAAAAGGGACTCCCCACGCCGCAAGTCTCCAGAGGAACA
GCAGCACAATGGACCTGACGCTCTTCGCAGCTGAGGCCATCGCCCTTAACCGCCAGCTATCTCAGCACGAAGAGA
ACGAAGTACAGAGGAGCCAGAGGCACTAGCTGATGGCTCTGCTCCATGAAGCTTTCCCTCCCTGCAAGTCAC
GCCTGGCCCCGAGACGGGCCCTGGCCAGGCAGGCCGTGGTGAAGACAGGAGCCCGCCACAGCACTCTGAAATG
CTCCAGTCACACCTTATAGGCCCTAGGCTGGCCAGGCATTGTCCCTGGAAACCTGTGTGGCTAAAGTCTGCTG
AGCAGGCAGCAGCCTCTGCTCTGTGGCTCCATTAGGCTTTTTTCATCTACGAAGGCCCTGAGGTTCCCATCAACC
CCCATTTCCCTAGGGTCTTGAGGAAAAAGCTTTTTCCAAAGGGGTTGTCTTTGAAAAGGAAAGCAATCACTTCT
CACTTTGCATAATTGCCTGCAGCAGGAACATCTCTCACTGGGCTCCACCTGCTCACCCGCTGCAGATCTGGGA
TCCAGCCTGCTCTCACCGCTGTAGCTGTGGCGGCTGGGGCTGCAGCCTGCAGGGAGAAGCAAGAAGCATCAGTTG
ACAGAGGCTGCCGACACGTGCCTCTTCCCTCTCTCTGTACCCCTCCTCTGGCGGTCTTCCACCTTCTCTG
TCCTCCGGATGTCTCTTTGCCCGTCTTCTCCCTTGGCTGAGCAAAGCCATCCCCTCAATTCAGGGAAGGGCAAG
GAGCCTTCTCATTAGGAAATCAAATCAGTCTTCCGGTCTGCAGCACGGAAGACATAATCTTTCTTTGCTG
TGACTGAAATGTATCCCTCGTTTATCATCCCTTTGTTTGTGATTGCTGCTAAAGTCAGTAGTATCGTTTTTTTA
AAAAAAAAGTTTGGTGTTTTAAACCATGCTGTTCCAGCAAAGATGATACCTTAAACTCCCCTGCAAGCCCATGA
ACTTCCCAGAGAGTGAACGGCTTGCTCTTCTTCTAGAAATGTCCATGCACTTGGGTTTTAATCAGCAGTTCCTT
ATTATTCTGATTTTAAAGCTGTTTCTGTGATGAAGTATAGAGACAGCATCGGTGTCTGCTGCTGTGTCCCAGGTCT
TGTGTGGGTGGCACAGATCTGGGCAGTTAGATAGTGTCTGTGCCTAAGGTGAAGCCACACTAGGGTGAAGCCTC
ACTTCCCTGTTTGAAGCAATGCAGTGCTGCTGCGCGTGTGCATGAAGGTACAGCCATTAGATAAGTGAAGTAT
TGAGTTACATAAAGAAAAATAGATTTGCATTTGTGAGGCAGACGTTTATACAACACCACGGTGCTTTTATACATTG
TGCTTATTTTAAATAAAACTGAAATTTCAAAAAAAAAAAAAAAAAA

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FIGURE 460

MVSSQKLEKPIEMGSSEPLPIADGDRRRKKRRGRATDSLPGKFEDMYKLTSELLGEGAYAKVQGAVSLQNGKEY
AVKII EKQAGHSR SRVFREVELYQCQGNKNILELIEFFEDDTRFYLVFEKLQGG SILAHIQKQKHFNEREASRV
VRDVAAALDFLHTKDKVSLCHLGWSAMAPSGLTAAPTSLGSSDPPTSASQVAGTTGIAHRDLKPENILCESPEKV
SPVKICDFDLGSGMKLNNSCTPITTPELTTPCGSAEYMAPEVVVEVFTDQATFYDKRCDLWSLGVVLYIMLSGYPP
FVGHC GADCGWDRGEVCRVCQNKLFESI QEGKYEFPDKDWAHISSEAKDLISKLLVRDAKQRLSAAQVLQHPWVQ
GQAPEKGLPTPQVLQRNSSTMDLT LFAAEAIALNRQLSQHEENELAEPEALADGLCSMKLSPPCKSRLARRRAL
AQAGRGEDRSFPPTAL

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FIGURE 461

CTAGTCTTTT CAGCCTTCAGGCTGTTTTTGGCTTGAAGCTCTCTTGGCCTCCTAGTTTCTACCTAATCATGTCCTT
GGTGGAGGCCATCAGCCTCTGGAATGAAGGGGTGCTGGCAGCGGACAAGAAGGACTGGAAGGGAGCCCTGGATGC
CTTCAGTGCCGTCCAGGACCCCCACTCCCGGATTTGCTTCAACATTGGCTGCATGTACACTATCCTGAAGAACAT
GACTGAAGCAGAGAAGGCCCTTTACCAGAAGCATTAAACGAGACAAGCACTTGGCAGTGGCTTACTTCCAACGAGG
GATGCTCTACTACCAGACAGAGAAATATGATTTGGCTATCAAAGACCTTAAAGAAGCCTTGATTGAGCTTCGAGG
GAACCAGCTGATAGACTATAAGATCCTGGGGCTCCAGTTCAAGCTGTTTGCTGTGAGGTGTTATATAACATTGC
TTTCATGTATGCCAAGAAGGAGGAATGGAAAAAGCTGAAGAACAGTTAGCATTGGCCACGAGCATGAAGTCTGA
GCCCAGACATTCCAAAATCGACAAGGCGATGGAGTGTGTCTGGAAGCAGAAGCTATATGAGCCAGTGGTGATCCC
TGTGGGCAAGCTGTTTCGACCAAATGAGAGACAAGTGGCTCAGCTGGCCAAGAAGGATTACCTAGGCAAGGCGAC
GGTCGTGGCATCTGTGGTGGATCAAGACAGTTTCTCTGGGTTTGCCCTCTGCAACCACAGGCAGCTGAGCCTCC
ACCCAGACCGAAAACCCAGAGATCTTCAGGGCTCTGGAAGGGGAGGCTCACCGTGTGCTATTTGGGTTTGTGCC
TGAGACAAAAGAAGAGCTCCAGGTCATGCCAGGGAACATTGTCTTTGTCTTGAAGAAGGGCAATGATAACTGGGC
CACGGTCATGTTCAACGGGCAGAAGGGGCTTGTTCCTGCAACTACCTTGAACCAGTTGAGTTGCGGATCCACCC
TCAGCAGCAGCCCCAGGAGGAAAGCTCTCCGCAGTCCGACATCCAGCTCCTCCTAGTTCCAAAGCCCCCTGGAAA
ACCCAGCTGTCAACAGGCCAGAAACAAAAGAAGAGCCTAAGGAAGTGAAGCTCAGTGTTCCCATGCCCTACAC
ACTCAAGGTGCACTACAAGTACACGGTAGTCATGAAGACTCAGCCCGGGCTCCCCCTACAGCCAGGTCCGGGACA
GGTGTCTAAGAACTGGAGCTCCGGCTGGAACACACTAAGCTGAGCTATCGGCCTCGGGACAGCAATGAGCTGGT
GCCCCTTTCAGAAGACAGCATGAAGGATGCCTGGGGCCAGGTGAAAAACTACTGCCTGACTCTGTGGTGTGAGAA
CACAGTGGGTGACCAAGGCTTTCCAGATGAACCAAGGAAAGTGA AAAAGCTGATGCTAATAACCAGACAACAGA
ACCTCAGCTTAAGAAAGGCAGCCAAGTGGAGGCAC TCTTCAGTTATGAGGCTACCCAACCAGAGGACCTGGAGTT
TCAGGAAGGGGATATAATCCTGGTGTTATCAAAGGTGAATGAAGAATGGCTGGAAGGGGAGTGCAAAGGGAAGGT
GGGCATTTTCCCCAAAGTTTTTGTGTAAGACTGCGCAACTACAGATTTGGAAAGCACTCGGAGAGAAGTCTAGGA
TGTTTTCACAACTACAAAGCTGAAGAAAATGAAGCCCTATTACTTGTGTTGTAAGATTTAGCACCTTCTGCTGTA
TACTGTACTGAGACATTACAGTTTGAAGTGTTAACTATTTATTCCTGTAAAAATTTAACCTACTAGACAATGA
TGTGAGTACCCAGGATGATTTCTGGGGCAGAGTGGGTGAGGAGATGGGGACAGGTGAATGGAGGAGTTAGGGGA
GAGGAAAAGTGGATGGAAGTGCTGGAAAGGGCACGAGAGAGTCTTCCAGGTACTGATCCTGTTTCTGTGCTCTGA
GTGCTAGCTAGCCAGCTGTGTTACACTGTAAACATTCAAGCTGTACATTTGGTGCACTTTTCTGTGTCATA
CCACAATAAAAAAAACCTATCATCATCTTACAAAACAAGACACCCAAGTCCAGGCCCAAGGAGTAAGTACAAA
TATTCCTGTTTCTGAACCATTAAGTGTGCTCTTAAGGCTTGAAGTAACCTTATAGGTTACTCATAAGGCAT
ATACAAATAAAGTTGTTGTTTTCTTTTTTC

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FIGURE 462

MSLVEAISLWNEGVLAAADKKDWKGALDAFSVQDPHSRICFNIGCMYTIILKNMTEAEKAFTRSINRDKHLAVAYF
QRGMLYYQTEKYDLAIKDLKEALIQLRGNQLIDYKILGLQFKLFACEVLYNIAFMYAKKEEWKKAEEQLALATSM
KSEPRHSKIDKAMECVWKQKLYEPVVIPVGKLFERNERQVAQLAKKDYLGKATVVASVVDQDSFSGFAPLQPQAA
EPPPRPKTPEIFRALEGEAHRVLFVGFVPETKEELQVMPGNIVFVLKKGNDNWATVMFNGQKGLVPCNYLEPVELR
IHPQQPQEESPQSDIPAPPSSKAPGKPLSPGQKQKEEPKEVKLSVPMPTLKVHYKYTVVMKTQGPLYSQV
RDMVSKKLELRLEHTKLSYRPRDSNELVPLSEDSMKDAWGQVKNYCLTLWCENTVGDQGFDPDEPKESEKADANNQ
TTEPQLKKGSQVEALFSYEATQPEDLEFQEGDIILVLSKVNEEWLEGECKGKVGIFPKVFVEDCATTDLESTRE
V

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FIGURE 463A

CAAGATACCCTCCAGGCCCTCATCACCTTTTTTCAAGTCAAGATTTTCATCCCATACATGCATGACTCAATCAGAT
TTGGAAATGTGGATATGCCCTGTCGTCCAAGCCCAATATAGCCCTTCCCTCCAGGTTCCAGTTATGCGGTGCTC
AGACATACAGCTCGGAATACACCACGGAGATCATGAACCCGACTACACCAAGCTGACCATGACCTTGGCAGCA
CTGAGATCACGGCTACAGCCACCACGTCCCTGCCAGCATCAGTACCTTTGTGGAGGGCTACTCGAGCAACTACG
AACTCAAGCCTTCCTGCGTGATACCAATGCAGCGGCCCTTGATCAAAGTGGAGGAGGGGCGGGCGCCAGCTACC
ATCACCATCACCACCACCACCACCACCACCACCATCACCAGCAGCAGCATCAGCAGCCATCCATTCTCTCCAG
CCTCCAGCCCGGAGGACGAGGTGCTGCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGTCCACCCCA
CGCCGGCCTTCCCCCGCAGGCGGGGCGTTATGGGACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCG
GCCCGCTGCTGGACCCGCCGATGAAGGCGGTCCCCACGGTGGCGGGCGCGCTTCCCGCTCTTCCACTTCAAGC
CCTCGCCGCCGATCCCCCGCGCCAGCCCGGCCGGCGGCCACCACCTCGGCTACGACCCGACGGCCGCTGCCG
CGCTCAGCCTGCCGCTGGGAGCCGAGCCCGCGGGCAGCCAGGCCGCGCGCTTGAGGGCCACCCGTACGGGC
TGCCGCTGGCCAAGAGGGCGGCCCGCTGGCCTTCCCGCTCTCGGCTCAGCCCTCCCTACCGCGTCCAGCC
TGCTGGGCGAGAGTCCCAGCCTGCCGTCGCCGCCAGCAGGAGCTCGTCTGCTGCGGAGGGCACGTGTGCCGTGT
GCGGGGACAACGCCGCTGCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAG
TGCAGAAAAATGCAAAATATGTTTGCTGGCAAATAAAACTGCCAGTAGACAAGAGACGTGAAAACCGATGTC
AGTACTGTGATTTTCAAGAGTGTCTCAGTGTGGAAATGGTAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGA
GGAGAGGTGCTCTGCCTTCAAACCAAAGAGCCCAATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCTC
CAATCTGCATGATGAATGCTCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACT
GTCCCACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCCTGACAGCCTCCA
TTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTA
TTGAATCAGCCTTTTTTGAGCTGTTTGTCTCAGACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGT
TCTGCAATGGACTTGTCTGATCGACTTCAGTGCCTTCGTGGATTGGGGAGTGGCTCGACTCTATTAAAGACT
TTTCTTAAATTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAGCCTGCCTGTCAGCACTGAGCATGATCACAG
AAAGACATGGGTAAAAGAACCAAAGAGAGTGAAGAGCTATGCAACAAGATCACAAGCAGTTTAAAGACCACC
AGAGTAAGGGACAGGCTCTGGAGCCACCGAGTCCAAGGTCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCA
CCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCT
TCCTGGACACCCTACCTTTCTTAATCAGGAGCAGTGGAGCAGTGAAGCTGCCTCCTCTCCTAGCACCTGCTTGTCTAC
GCAGCAAAGGGATAGGTTTTGGAACCTATCATTTCTGTCTTCTTAAAGAGGAAAAGCAGCTCCTGTAGAAAGC
AAAGACTTTCTTTTTTTCTGGCTCTTTCTCTTACAACCTAAAGCCAGAAAACCTTGCAGAGTATTGTGTTGGGGT
TGTGTTTTATATTTAGGCATTGGGGGATGGGGTGGGAGGGGGTTATAGTTTATGAGGGTTTCTAAGAAATTGCT
AACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATAACTGTTTTAAACTCTTTCTGG
GGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAGCCAAGGGTTGTTGCCAGGGTAGGATGTGTCTT
AAAGATTGGTCCCTTGAATAATGCTTCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAACTTCCTT
TTAATTTCTTCTTCTTTATTTTAAACAAATGGTGAAAGATGGAGGATTACCTACAATCAGACATGGCAAAACAA
TATGGCTGTTTGCTTCATAACAGCTGCAATTTTTAAAGTGTGCTTACTAAGTCTTGTTATACTCTCTTATCTA
TATGCCGGAATAAAAAGGAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCCACC
TTCCCTGTGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTGCC
CTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAAGTGTGTTTGGTTGTGTTCTAT
CAACCCACCAGAGTTCCCTAAACTTGCTTCAGTTATAGTAACTGACTGGTATATCATTTCAGAAAGCGCCATAAGT
CAGTTGAGTATTGATCCTAGATAAGAACATGCAATCAGAGGACTGGTCATACAGGGTAAGCACCAGGGACAATAA
GGATTTTTATAGATATAATTTAATTTTTGTATTGGTTAAGGAGACAATTTTGGAGAGCAAGCAAATCTTCTTTT
TAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAAGAAATAGTATGAGTGTGAGTCATAGGAAGGATTAGT
GGGCTGCGTTTTCAACATTCCGTGTTCTGACTCCCTTTTGTATGTTTCTACTGTTAATGCCATATTACTATGAGAT
AATTTGTTGCATAGTGTCTTATTTGTATAAACATTTGTATGCACGTTATATTGTAATAGCTTTGCCTGTATTTA
TTGCAAGACCACCAGCTCCTGGAAGCTGAGTTACAGAGTAATTAATGGGGTGTTCACAGTGACTTGGATACACC
AATTAGAAATTAATAAGCAAATATATATATATATATAAATATAGCAGGTTACATATATATATTTATAATGTG
TCTTTTTATTAAACATTTGTACAATAAATGTCACTTCCCATGCCGTTATTTTATGGTTCAATTTGCAGTGACTTTT
AAGGCAGTACTGTTTAGCACTTTGATATTAAATTTTGCTTATGTTTTGCTAAATTCGAATAATGTTTGAAGATT

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FIGURE 463B

TTTAGGTCTAAAAGTCTTTATATTATATACGCTGTATCAAGTCAAAATATCTTTGGCCATTTTGCTAAGAAACAA
ACTTTGAATGTCAAACGTGATGTCACAGTAGTTTTTGTAGCTTTAAATCATTTTGTCTTTAGTCTTTTAAAGGA
AAATAACAAAACATATGCTGTTTATATTGCATTAATTATACAATCAAACAAATGCCAAATGAATTGCCTAATTGCG
CAAGATAACCCAGATAGGAAATCATATGTTTTTTTCCAAGAGTCATTCTAATATTTGATTATGTTATGTGTGCTT
TTATGAAAGATTGTTATTTTATATATCAAGATGATAGAACCTGGAATGTTAGGATTTTGAAATGTTAGACTTGG
AAGGGCCTGGTCTGTCAACTAGTCCAACCCCTTAAATTCATAGAGGACGAAACTGGGGCCCAATTGAAGGGTG
AAGAGTTACTCAAGGTCAAACAGCTGGTAACAGAAATCAAGACTAAGACCTAATTTACCTTTCCATACTCTTTTTT
TTTCTCAACTTCATCTATATAAAATCAGGCTTTTAAACATAACCACTAATATTTACCTGAAGATAACCATGAGTA
AAGTATACTTTTGCATTAATTTTTTGAGTATATGCAAACATAATAAATATTATTAAATATCAAGGAAAGCTAACA
TTTCATACAAGATAGCTTCAGACCAAATTCAAATTGAATTTGAATAAATTAGAAATACTGTGCATACATAACCTT
CTTGTCACCATGAGTATTTGGAAAGTTAATCCTTGTTTTTGTGCTGTCTATAGAGAACAACAAATAAAAACAG
AGCCCTAGAGAAATGGCGTTACTTTTTATTTTTACACCCATCAGATTTAAGGAAAAGACTTTTTAGCCATTATAA
TCTAGTGGTTGGAAGGAATGAAGAAGCTTTTTTAGTAATAGGTCCAGATATGAGTGCTAAAAATAAAGATGATAG
CATGTTCTTCTGTCTTCCATAGTTATTACAACATGAGAGCCTCCCAAGTCATCTTATCAACTCAACCCCTTTT
TTTTGTCTTAATGTTGCACATAAGTTTATACAGAGTGGATGACCACACTAGCACAGAAGAGAACAACATGTATTA
AAGCAGGTGATTCCCTCCCTTGGCGGGAGAGCTCTCTCAGTGTGAACATGCCTTCTGTGGGCGGAAATCAGGAAGC
CACCAGCTGTTAATGGAGAGTGCCTTGCTTTTTATTTCAGACAGCAGAGTTTTCCAAAGTTTCTCTGCTCCTCTAA
CAGCATTGCTCTTTAGTGTGTGTTAACCTGTGTTTGAAAGAAATGCTCTTGTACATTAACAATGTAAATTTAAA
TGATTAAATTACATTTTATCAATGGCA

FIGURE 464

[illegible]

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FIGURE 465

GCCAGAAAGCATTCTTTTCACTTTTACTCTGTATTTCATGCTATTGAAAGTTGCTTCTGTCAGAGGAAACAAACACTG
TGATTGAGGAAATATTGATGAATTTTAAATGACAAGGAAATTGCCACATTGACAGAATTTTGGTCCATCTATTTA
AAGATGATTTTTTGAAGATATGCATAAGACTCATATTCTGACAAGTTTCACAGAACAATTCAGAGGTTATTAC
CAAGAGGATCCCACTGAAATCATCAGCCTGCCTTTTTAAAAGAAAAATATTGTTTAGTGAAATAATAAATATGAA
GCTCTGATTTTTAGCAAAGAATTGTGAGTGTCTACTGGATTTCTTCTTTGCTTTTTAGCTGTATGACAAAATTA
ACACAAAGTCTTCACCACAAATCAGGAATCCTCCAAGCGATGCAGTACAGAGAGCCAAAGAGGTATTGGAAGAAA
TTTCATGTTACCCTGAGAATAACGACGCAAAGGAATAAAGCGTATTTAACACAACCTCATTTCATGGCCTTAC
TTCAGACTCAGCAGTAGTGGCACATGAAGTTTACAGTGTGAAGCATTGAGGGTCACACCTCCTCCACCTCTC
CCTATTTAAACGGCGATTCTCCAGAAAGTGCTAACGGAGGCATGGATATGGAGAATGTGACCAGAGTTCGGCTGG
TACAGTTTCAAAGAACACAGATGAACCAATGGGAATCACTTTAAAAATGAATGAACTAAATCATTGTATTGTTG
CAAGAATTATGCATGGGGGCATGATTCACAGGCAAGGTACACTTCATGTTGGTGATGAAATTCGAGAAATCAATG
GCATCAGTGTGGCTAACCAACAGTGGAACTGCAAAAAATGCTTAGGGAAATGCGGGGGAGTATTACCTTCA
AGATTGTGCCAAGTTACCGCACTCAGTCTTCGTCCTGTGAGGACTTGCCATCAACTACCCAAACCAAAAGGACGAC
AGATCTATGTAAGAGCACAATTTGAATATGATCCAGCCAAGGATGACCTCATCCCTGTAAAGAAGCTGGCATT
GATTTCAGAGTTGGTGACATCATCCAGATTATTAGTAAGGATGATCATAATTGGTGGCAGGGTAACTGGAAAAT
CCAAAAATGGAAGTGCAGGTCTCATTCCTTCTCTGAAGTTCAGGAATGGCGAGTAGCTTGCCATTGCCATGGAGA
AGACCAACAGGAGCAGCAGGCCAGCTGTACTTGGTTTGGCAAGAAAAAGAGCAGTACAAAGATAAATATTTGG
CAAAGCACAATGCAGTGTGTTGATCAATTAGATCTTGTACATATGAAGAAGTAGTAAACTGCCAGCATTCAAGA
GGAAAACACTAGTCTTATTAGGCGCACATGGTGTGGGAGAAGACACATAAAAAACACTCTCATCACAAAGCACC
CAGACCGGTTTGGCTACCTATTCCACATACAACCAGACCTCCAAAGAAAGACGAAGAAAAATGGAAGAATTATT
ACTTTGTATCTCATGACCAATGATGCAAGACATCTCTAATAACGAGTACTTGGAGTACGGCAGCCACGAGGATG
CGATGTATGGGACAAAATGAGAGCCATCCGGAAGATCCACGAGCAGGGGCTGATTGCAATACTGGACGTGGAGC
CTCAGGCACTGAAGGTCCTGAGAACTGCAGAGTTTGCTCCTTTTGTGTTTTCATTGCTGCACCACTATTACTC
CAGGTTTTAAATGAGGATGAATCTCTTCAGCGTCTGCAGAAGGAGTCTGACATCTTACAGAGAACATATGCACACT
ACTTCGATCTCACAATTATCAACAATGAAATTGATGAGACAATCAGACATCTGGAGGAAGCTGTTGAGCTCGTGT
GCACAGCCCCACAGTGGGTCCCTGTCTCCTGGGTCTATTAGGCCCTCTCCCAGATATCTGAGCATAACTGGGAGC
ACCTCATTGTGGAAAGCCTCTTTGTTATCGGCCTTGTGTGAGGAGTCTGAGTCCCTAGAGACTACCTAGTTG
TAGTGTGACCTACATTTATAATTATTGTCATGTCCGAATAGATAGGAGGAGAAAAACAATTACACACTAATTTAA
AGAGACAGTATCTTTTTTAATCAGTTCTCCTAACTTTAATAAAATGTATCTTTAAATGTATGTATTATTCAATC
CTTTGGAATGTTATATTTTTTGGAAATCATAGCTTTTTATTTCGAAGGCCCTAAAAACTGCACAAAATAGATGCT
GCTTTCTATAATCTATTTTAAATAATAATAACAATGATTCTGTTACCTTGACTGGGGGTGGAACACTACATTCTT
TTTAGAGTCTGATTTTATGGATTGGAATATTGGGATATCTTCTTCTCTTTTATTTTATTTGAAATAATTAGTGTAG
TGATTACAAAACAGTCATAAATTTTTAAAGGCCTTTTTCTCTCTTTTTTTTTTTTAGAATAGTATTTTTTTT
TAAGTCCTTTATGTAACATCCAGATAATGTGATACTGTCTCTTTGAAGCACCTGTAAACCTTTTAGAGATTGGA
AGTTGGGTCTTGACTCTTAATGCATGTGGACAGTCGCGAGCGTTATGCTGTCTGGTGTGTCTGTGTTGGACAAAA
CAATCTGTAATCTACAGCAAAGTACATTCTACATTCCGTTTCATGGGGCACACCCAGGGGAATAAGAATAAAATGC
TATTATGACTAAGTTGTAAACCTATGCACATCCCTTGCATTTTGGGCAACTTTATAAAAAAAGAAACTGATTT
TTATTAATAATAATCATGTAGTGAAATGTGTTTGT

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FIGURE 466

LYDKINTKSSPQIRNPPSDAVQRAKEVLEEISCYPENNDAKELKRILTQPHFMALLQTHDVVAHEVYSDEALRVT
PPPTSPYLNQDSPESANGGMDMENVTRVRLVQFQKNTDEPMGITLKMNELNHCIVARIMHGGMIHRQGLHVGDE
IREINGISVANQTVEQLQKMLREMRGSITFKIVPSYRTQSSSCEDLPSTTQPKGRQIYVRAQFEYDPAKDDLIPC
KEAGIRFRVGDIIQIISKDDHNWWQKLENSKNGTAGLIPSELQEWVACIAMEKTKQEQQASCTWFGKKKKQY
KDKYLAKHNAVFDQLDLVTYEEVVKLPAFKRKTLVLLGAHGVGRRHIKNTLITKHPDRFAYPIPHTRPPKKDEE
NGKNYYFVSHDQMMQDISNNEYLEYGSHEDAMYGTKLETIRKIHEQGLIAILDVEPQALKVLRTAEFAPFVVFIA
APTITPGLNEDESRLQKESDILQRTYAHYFDLTIINNEIDETIRHLEEAVELVCTAPQWVPVSWVY

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FIGURE 467

GGCACGAGGCCGTGTTGGTCAGGCTGGTCTCAAAC TCCTGACCTCAGGTGATCCGCCCCGCTCAGCCTCCCAAAG
TGCTGAGATTACAGGTGTGAGCTACCGCACCCCGCCGAGGTTAGCACTTTCATCACCAAAGACCCCGTGCCCTCTC
GTGGTCCCTTTGAGGGATCCCGCCGCCACCACCCCTTGATTTTATCACGTGCTCTTCAGGGCATGTGGAATTCGTT
GAGTTTGCTTTTAGAGCCAAGTTTCTTTCCCTGTGTGGGTTTTTGAGGAAAACCTGAGGTCCCTAATCTGTGGC
CACCACCCCCCCCCCGCCGCCACGCCTTAGAGCAGAGCAGCCCTCCTCTCATTGTTGTCAGAAACAGTCAAGAG
GAACCATTGGCCTAGAGCTCCTGTGACCGAGAGCGCCACGGAAGCCTGGGGATGATGTCGGGCAGCTTTATTCTT
TGCTTGGCTTTGGTAAGTGGTGGTCCCTCAAGCATCCTCAGTTCCTCTTGCTGTTTATGAATCTAAGACAAGG
AAGTCCTATAGAAGCCAAAGGGACAGGGACGGAAAGGACAGGTCCCAAGGGATGGGGCTGTCTTTACTTGTGGAA
ACCAGGAAATTGCTCCTCTCAGCCAACCAAGGTTGACCACACACCACCTTCCGGAGCAGCTCAGTCAGCCCTCG
GGGACGAGAAACCACAAGCGCAGAGACGCTGAGGCCCAGGCAGGTGAAGAGGAAGTGGCTTTGGGTTTTTAAAGT
AGGTGAGCGTGAGCCTCTCTGACTGCTTCTTCCCCGGGGGGGACTGCAAACCGCTCAGGGTTGCGGCAGAGCCAT
GGACTTCCGGTCCCTGCAACGGGTGACCTAAGCGTGGTGCACCCATCAGTCACGCAGGAGGACTGACTTGACAGA
CGAAAGACAAGCCCGGATGACACAGGGTGAGAAGAGTCAGGGCCGCACCTCTGTCCCTGCAAACCAACAGGTGCA
TGGTGAGTGTGGCAGTCCCCACAGCTCCACAATGGGCTCCCCCGCCAAACGGGGACGACAGGGATCTTCAGGAAC
TCTGACCTCACCAAGTCAAGTGGACCACTCTCCACTCCACGAGGATGTGAAACGGTTCTTTAAAATGGGATTTTA
GAGCCTCGGGAATGCATGTGCGTCGCATCTTTCATATTATGGGTGAGGATAGATTTCATTTCTTGCAACATAGTGG
AAAAGATATAAGCTGCAGTAATTTGCTCTTTGAATGACCGTCACCCCCAGTATAGGATATGCTTGTATCCCCCG
TCACTCCTCCGCTGTTTTTTAACTTTTCCACCACCTGCGTCCAAAAAGAATGTTATAGCGAGTGCTCTTAAAT
GTTGAACCTGGGTGTTTGCTTCCGGGCCAGTCTGCGTGGCTCCATGAAAAGCTCACTGCTGCCCCAGCCGGGCTTC
TTAGAGGAGGTCAGTTGTCCTATGTATCATCATTTTACTCTGGGAATCCTACTGTGAAATCATGTCTGTATTTTTC
TGGAGCAGTTACATAGAGTAGAATGTGGAATTTCCCGTGAACGTCCTTCCCTCCCCGATCTGCCGCTGTC
ACTTCGCCACCGTGCTAGAATACTGTTGTGTGTGTAAGATGACTAATTTTAAAAGAACCTGCCCTGAAAAGTTCTT
AGAAACGCAATGAAAGGGAGGAACCTGTCCTTTACCCAGTTTTTCCCTTTGTAGGATGGGAAAGTATAAAAAGGCA
CAGAAGGTTGTCATGGGCTGTTTCCCTTGGGGGTTTTTATCCTGCTCACCGTGGAGATAAGCCTGCGGCTTGCTTAA
CCAGCGCAGCGCAAAGGTCTCAATGCCTTTTGGTAACATCCGTCATTGCAGAAGAAAGTTTACACGACGTCAAAA
AGTGACGTTTCATGCTAAGTGTGTTTTCCAGAAATATGGTTTTCATGTTTCTTATTGGCTCTGCCTCCTGTGCTTAT
ATCATCCAAAAACTTTTTTAAAAGGTCCAGAATTCATTTTAACTGATGTTGAGCACCTTTAAAACGTTTCGTAT
GTGTGTTGCACTAATTCTAACTTTGGAGGCATTTTGCTGTGTGAGGCCGATCGCCACTGTAAAGGTCCTAGAGT
TGCCTGTTTGTCTCTGGAGATGGAATTAAACCAAA TAAAGAGCTTCCACTGGAGGCTTGATTGACCTTGTAAC
ATATGTTAATCTCGTGTTAAAATAAAATATAACTTGTGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 468

MTQGEKSQGRITSVPANQQVHGECGSPHSSTMGSPANGDDRDLQELLTSPSQVDHSPLHEDVKRFFKMGE

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FIGURE 469A

GACCCAAGTACGTCAGGGCTCCACGGTACTGTTTTCTTTCCTCTAGGAAGATGGGATTTCTTTTGTCCAAGCA
CTGAAGGAACCGACCCAAACCAGTCTTGGGGGCTCTGATAAGATTTTCAGACTCTGGACCTTTTCCATCAGGCAG
TGTCTCTGCTGTATCATCCAGTTTTGTCAGAGGTACTTGCAAGCCATCTGACCTCTCTCTTTTTTCTTTCAGT
GCTGGAGGGCAGTTATCTCAGGGTTCCAATTTATCCATTAATACCAACCAAAACATCAGCATCAAGTCCGAACCG
ATTTACCTCCTCGGGATCGTATGACCCCATCGGGCTTCCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCCGCCG
CCACCACCGCAGCCCCAGCCACAACCCCCGAGCCCCAGCCCCGACAGGAAATGGGGCGCTCCCCTGTGGACAGT
CTGAGCAGCTCTAGTAGCTCCTATGATGGCAGTGATCGGGAGGATCCACGGGGCGACTTCCATTCTCCAATTGTG
CTTGGCCGACCCCCAAACACTGAGGACAGAGAAAGCCCTTCTGTAAAGCGAATGAGGATGGACGCGTGGGTGACC
TAAGGCTTCCAAGCTGATGTTTGTACTTTTGTGTTACTGCAGTGACCTGCCCTACATATCTAAATCGGTAAATAA
GGACATGAGTTAAATATATTTATATGTACATACATATATATATCCCTTTACATATATATGTATGTGGGTGTGAGT
GTGTGTGTATGTGTGGGTGTGTGTACATACACAGAATCAGGCACCTTACCTGCAAACTCCTTGTAGGTCTGCAGA
TGTGTGTCCCATGGCAGACAAAGCACCCCTGTAGGCACAGACAAGTCTGGCACTTCCCTGGACTACTTGTTCGTA
AAGATAACCAAGTTTTTGCAGAGAAACGTGTACCCATATATAATTCTCCACACTAGCTTGCAGAAACCTAGAGGG
CCCCCTACTTGTTTTTATTTAACTGTGCAGTGACTGTAGTTACTTAAGAGAAAATGCTTTGTAGAACAGAGCAGTA
GAAAAGCAGGAACCAAGAAAGCAATACTGTACATAAAATGTCATTTATATTTTCCAACCTGGCATGGGTGTCTGT
TGCAAAGGGGTGCATGGGAAAGGGCTGTGTATATTAATAACAAACAAAACAAAAAGCCCCACACATAACTGTTT
TGCACGTGCAAAAATGTATTGGGTCAAGAAGTGATCTTTAGCTAATAAAGAAAGAGAATAGAAAACACGCATGAG
ATATTCAGAAAATACTAGCCTAGAAAATATAGAGCATTAAACAAAGTAAAATTAATATATTAAGTTATAATTGGAAT
ATGTCAGAAGTTTCTTTTTACATTATATCTTAAAAATTAAAGAAACTGATTTTAGCTCATGTATATTTTATATG
AAAGAAAACACCCTTATGAATTGATGACTATATATAAAATTATATTCACTACTTTTGAACACATTCTGCTATGAA
TTATTTATATAAGCCAAAGCTATATGTTGTAACCTTTTTTTAGAGAATAGCTTTTATCTTGGTTAACTCTTTAGT
TTTATTTTAAAGAGGGGAAAACAAAAATATCTTGCAAGCAGAACCTTGAAAAAAGCCATGAACACTTATTC
TAAATGTAAATTAAAAGTTGAGCCAAACTCTTTGTGTATATAGCATCTTAAATATATTATCACCTTTGATGTAAG
TACCTATGTATTGTATGGTCACCAGATTAAAAAGTATATTTTTGTGGATTGCCGCCAATCTGGGGGGAAAAGGCG
AGGTCCTTTATTAAGTATTCACTGTCTAATATTACTATTTTGGTAAATATACTGTACTTTGGATTTTAATTATT
AGGCCAGTGTTTTAGAGGATTGTATTAAGGGGTTCTCCCCTCACTGGTGGGGGAATGTGTGATGGTTACAATG
GAATCTTCGGGGCTGTTTGGGTGAGCATCAAXATATTTTTTGGGTGTGGTCAATAAATTGGAAAGGGGCAAA
AAAAATTGGGGGTTAAGTCCAACCCGAATAAGAATAAATGTGTTTGTAAACAAGATTTAATAAGCCATTATTTAA
AACTTCCCTTTTGTGXGGXXXAAATGTAGAAGAXAAACCTGACCTAATTTAATTAATATXAGAGAAAATGCCAAA
ATAGXAGATGAGCCCAAAGGTTTAAATAAGTGGTAAATGATTAGGGGAAAATAATCATGGGGAAAGGGATCTTTTT
TCCTTGACCTCTGAAAACAGAACGATGCAGCTGGTTACAAAATCCTACCGTTATCAGCTCTTCTGCACATTGCA
GTGATGCTTTGGTATGCGGGGAGAAACACTCTTAGGGTGCCGTCCTTGGCATGACTCTTGCCATTCTAATTGGA
ATTAGTGCCACCCTCAGCTTGGATTTTGAACAAGCCTTATTCTTTCAGGAAGACAATAATGGATGATAGCAAGT
TCATCCACTTACTGGGCTTGTGCCATGAGCAAAATTCAAAGTCCTGTATATCTTTCATTGTAGATTTTTAAATAC
TCCTTTTCTTAAAAACTCAAGGGTTTAAAAATTGCTATTTTATATTTTAAATGATATTGAGCAGCTACCTACAA
TTTCTATGTACATTTTGTTCACCCCCCACCACCACCCCCAAATTACGTTTCTTTTGACATTTTCTCATCTGCTG
TTTGTGACAAGTCATCAGCCAGATTTTCTGACTGACACATAGGTATGATCAGTGCAGGAGAGACCTGCCGACCAC
AGGCTGCAAACTGGAGGTTCTGTTCTCATGGCAGGTTGGGCAGTAACTTTTGAGAGAGGCCAAAAAAGGAGGAT
GACATGCTGTCTCCTCTCTTCAGATAGACATTAGGCTCTTATTCAGAAAGGATTTTTCTTTAAAAATGTACTTAC
TTTACTGAACTACTTACAGGCACATTTCTTCATAAGGCCACACCTAATCCAAACAAGACAGTCTCCCAACACTGA
AGTTCCAAAATAATCCTTACCCTTTGTAAACCATTTATAGCTTTGAAAGTGTTAAGTGATTCTTCGTTATTAT
TTATGCATGTTTCATGAACCTTCTGCTGGACATTGGAATAGGAGTTAACACATTCACATTTACTGTCTATTTCTTG
GGTGCTTATGAGATGGCCXCTGACAGTACTCCAATAGTCTTTCTXGCTACGCAGGXXXATAATCAGCACAAC
TACTGCTTTCTAGAATACTACTACTCAAGGCTCGGCGTTGGGTTAAATTACACTGCACCAGGTAACAATGAACT
CCATTTTCAGGAAGTGAATATTTGACTGTAAACCTTTTCCCATACGTCCAGTGTGGCATGGAGCATATGGACTTG
ACAGACATCTCTACCCAGACGCCACGTTGTAACACACCCACATCCACATCTCTGGGTGGAAACCAGCCTAGAG
AGGGGACGACGCTAATGGTGTTGCTTTAGAACCCTTTTCTTACCCTTTTAGACTCGTGTTTTGTGTGAGACAC
CATTGCAAGAAAATTTTATCCCTCCAGAAGTATTTTATTACTAAAGAACAAAAGCAAAAAAGCTTAAATTGCAC

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FIGURE 469B

TGGTTAAAGTACAGTTTCCAACAGCTGTCCTTCCTCAGTACTCTAATGGCCACTCCACCGCGAGTGGAAGTCACT
GTTGTGTGTACACAGGTGGTCCCAATCAAACTTCATCTTGTGAGCCCAATTATGTCCATTTTGTATAGACTAA
ATCAGGGGTTTGTCTACAAGAACAATACATGTTTTACCTTTTCTTTAACTAGAAAGGATAACTAGTAATGCATC
AACATAATTTCTGTATTAAACCATCATGCGCACAGAATAACATAGGAAATAAGGAAGAAGAAAACCTCCTGGCATC
GGATCTTAAGCTAGATGATTAGAATGTGAAAAAGATTTTACAAATGTAAAACCTCTATTTCTCTGTAGAACTTT
CTTCACTTTGCTGTGCAAGAAGACACTGCTTTGCTATATTCAAATGGCTTTTCTTACAAGAGATTTATGTATTT
GGTAAATGTTTGTAGTCAACAGTTCACACAAGAAGCTGTACACGGTTTGTATCATGTAAAACCGTTTGGCGGCACA
AGCTGGACTTTGTTGCCATCCTTGAGATGAACCTTTTAAAGAAAATAAGTTAATCTCAATTTTCCCTGAATGTG
TTGTTTTTCTTCATTATACAATAAATATAATAGTGAACTTTTATCAAATGGTGAAGACAATGCTAAAGGTTGTT
GCAAACGTTTGTCTCCCGCACTCACTCCAGTAAAGACGGACTGGCTCTTCTGTGCGTCGAGACTCTGTCACGT
TTGCCTGGGGACACAAGGCGCTGGCTTTGCCACCAGGCAGCCCTTCCCCTAAAGCCCTCTCCTTTTTTCATTCCT
TTCACGAAGACCTTCTTCACCCGCAGGCTTCTTCTCTGGGTTGAGACAGGGCCAAGGAAACCGTCCCAACGCCC
CACTGGGC

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FIGURE 470A

GGGGTGTGTCAAGAATTAATTTTCGGAATTGGTTGGTGACAAGTGATGCTGACTTACTCAATAGCACGTATGTGCA
TGTTGATAACCCACCGAGAAGCCGAGGAGGCAAGGCTCGCGAGAGTTTCAGGGAGGCCGCCCTGAGATTCCGGCGA
GGCCGCGGGTCCCACCTCCCGGGGGCGGGGCGAGGCGGAGCGGGGAGAAGGGAGCTGACGGGCGCCCGGCCGC
TGCGGTCCGTGCGGAGGCTGAGCCGGCCGCGGGCGCGACCGGAGGCAGTTTCCGTTACTATGGCAATGACGGCAG
GGACTACAACAACCTTTCTATGAGCAACCATAACCGGGAAAGAGTGACTGTAGCCAAGCTCACATTGGAGAATT
TTTATAGCAACCTAATTTTACAGCATGAAGAGAGAGAAACCAGGCAGAAGAAATTAGAAGTGGCCATGGAAGAAG
AAGGATTAGCAGATGAAGAGAAAAAGTTACGTCGATCACAACACGCTCGCAAAGAAACAGAGTTCTTACGGCTCA
AAAGGACCAGACTTGGCTTGGATGACTTTGAGTCTCTGAAAGTTATAGGAAGAGGAGCTTTTGGAGAGGTGCGGT
TGGTCCAGAAGAAAGATACAGGCCATATCTATGCAATGAAGATATTGAGAAAGTCTGATATGCTTGAAAAAGAGC
AGGTGGCCCATATCCGAGCAGAAAGAGATATTTTGGTAGAAGCAGATGGTGCCTGGGTGGTGAAGATGTTTTACA
GTTTTTCAGGATAAGAGGAATCTTTATCTAATCATGGAATTTCTCCCTGGAGGTGACATGATGACATTGCTAATGA
AGAAAGACACCTTGACAGAAGAGGAAACACAGTTCACATTTTCAGAGACTGTTCTGGCAATAGATGCGATCCACC
AGTTGGGTTTCATCCATCGGGATATTAAGCCAGACAACCTTTTATTGGATGCCAAGGGTCATGTAAAATTATCTG
ATTTTGGTTTATGTACGGGATTAAAGAAAGCTCACAGGACTGAATTTTATAGAAATCTCACACACAACCCACCAA
GTGACTTCTCATTTCAGAACATGAACCTCAAAGAGGAAAGCAGAACTTGGAAAGAAACAGGAGACAACCTGGCAT
ATTCCACAGTTGGGACACCAGATTACATTGCTCCAGAAGTATTCATGCAGACTGGTTACAACAAATTGTGTGACT
GGTGGTCTTTGGGAGTGATTATGTATGAAATGCTAATAGGATATCCACCTTTCTGCTCTGAAACACCTCAAGAAA
CATAAGAAAAGTGATGAACCTGGAAAGAACTCTGGTATTTCTCCAGAGGTACCTATATCTGAGAAAGCCAAAGG
ACTTAATTCTCAGATTTTGTATTGATTCTGAAAACAGAATTGGAAATAGTGGAGTAGAAGAAATAAAAGGTCATC
CCTTTTTTGAAGGTGTCGACTGGGAGCACATAAGGGAAAGGCCAGCAGCAATCCCTATAGAAATCAAAAGCATTG
ATGATACTTCAAATTTTGTATGACTTCCCTGAATCTGATATTTTACAACCAGTGCCAAATACCACAGAACCCGACT
ACAAATCCAAAGACTGGGTTTTTCTCAATTATACCTATAAAAGGTTTGAAGGGTTGACTCAACGTGGCTCTATCC
CCACCTACATGAAAGCTGGGAAGTTATGAATGAAGATAACATTACCCATAACCAAGAGAACTCAGGTAGCTGCA
TCACCAGGCTTGCTTGGCGTAGATAACAATACACTGAAATACTCCTGAAGATGGTGGTGCTTATTGACTACAAGA
GGAAATTCTACAGGATTAGGATTTCTAAGACTACTATAGGAATTGGTTGGCAGTGCCAGCTGGCTCTTTTTTTTA
ATATTTTATTATTTTTGTTAACTTTATTATATGAAGGTACTGGAATAAAAGGAACAGACATCCCTTTCTAACTGC
ACTGCCTACATGCGTATTAAGGTCCATTCTGCCTGTGTGTGCTGTGGCTTTGAACTGTAACACCTCTAATCAATT
CAGGAGAAACACATATCATTAAAGCAACATAGGCTAACCTGTAGGTAACACTGCAGTATTGATGTTTTACTGCA
AATCTTATGGGTCTAGATAATCAGTAAAAGCCATCTTCCATAGTTGGTGTTAGAACATTGCCCTATTGGTTTGGGA
CATCTGTAGAATATATATGAAGACAATTTCTGTAATGGTTTTAAGAGATTTAAAAAGAAATTCAGTGGTCTTTTA
CAAAATAGAATTTATCATCAAGTTATTACACAACTTCACAGTAAGGAGTGACAAGTTTATAATAAGGAAGACAA
AGTTTAACACCTTCACTCAAGCACTCCACTAATATATTTACGTTGCATTTCAGAAATACTGATGACCTTCATATAC
GTAGTCTGTATACTCATAGGGAGATGTACTGTATTATATAACATGTAAAGTTGATTTTCTTGTGACAAGAGAACT
TCTTTTTTTAAACAAGAGGACATGGCATTATTTTAAATTTGATTATGGTGAGTTGAATTTAAGACATGACCATGAAG
GCTGCTTGTAGAATTAGTGTATTTTTATTAACTATTTTTTTAAATGTCAAACCTTCTATCATGTAAATGGACTTA
TAGAGAACAAAAAGCTATTTACTTTGGTTTTCTAGAAAGTTGTTACATATCATGGCTGGTTAACTTTTATTTCTT
TTGATGAAAATTTTCTTTTGATAGTACTTGTATTATTGTGCCATTATTTTCTTATGCTCCAAATGTACCAAAGA
TCTTGAACAGAGTGGATGTTTCAACTGAGTAGAATTTTCTTTCCIGTGGGCGATGCTGTATTTCAGACCTGACAG
ATCTTTGATAGAGGTCAGCTTATTAAAGGGCAATATTGTTCTTGTTAGCTACATCACTGTGGTGAATATAGATG
GAATTAAGGAAGTAAATGCAGGCCAGGGGGTTGTGATGAGAGGATAGGGGAGATAATATCAGCATCAAATCTTT
GGGTATCTCTCTAAGAATTAATAATCTTTTCTAGCTTAATATTTTAAATCTAATTCAAACAACCTCTGAGGTTTT
GGTTTCATTAGTAATAGTTGAGGÀATAATATACTAGCAAAGATGGCCTAATGTTTGTGCATAACTGTAAATGGAT
GAAATTTTTTAAAGATACAACCATGATAACCATTATAAATGATCTATGATCAAATCTAAAGTGATGAATTATTT
GTAGGAATGTCTTCTAATGGGGAAGAATTGCATAGGAGCATTATGCAAATCTACACAAGCTTTTATAAATGTTG
CTGCTGGGTAGCTCCACAGTGTTCATAAGGCCATCCTGTTTCCCCCAACTCCCCATTTTTGGTTTTGTTCTTT
TTAAATATTTGTTGAGTACTTACGTGTTTATCTAACAGTTCACCTCCATTTTTCTAGTCTGGATTTTTTGAGTAT
TTAGGAAAGAGAGCTATTAAAACTCTGGGGATTTCTCAATGTGACTAACTCTAATTTTTCTAATTATAACTGCC
TTTAATTAACATAATATTAACTTTTGCTGAGGTTTATGAGATTTTCTACCCACATCGCTCCCCTTTTTTTAA

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FIGURE 470B

AAGGACTGTTTTGCTAGTGTGATAATGAATAGGTAAGATATGAGATAATTGCAACATTGTCTAGTTCTAGTATGG
TAACTATTCTTGAAATGGTATTGAAAAATACCGTTAATTCAAATTGACAGAGATTGATAAAAAGAACTGATTTA
CCTAAGTTTACTTTTTAATTGCATAATAGAGCATTTTTTGTTTTGAGTTCCCTCATTCTTATTACCAGAAAGAGC
TTGCAATAGTTTTACTTTCTTGGCACTGGAAGGGTAGTTCTGGAAAGCTACTTTGTTGAGAGTCTCATTCTTCC
CTGGAGTTAATAGAGTGATTACAAATCTTTGGGGTTTTCTCCTCATCAAAAGCATTTCCTAAGTGCCTATCTAAA
AGCAATTAAAGACTGTGTCTGCCCTTTAGAAGCTAAGAATTTGATTCATGATGCAAATTAAGTAGATAATTTGCA
AAGTACCCCTTGAGATTGAATTTTCTCTATTATATATTTCCCATATTTTCAGGTGAATAATTTAATTTAAATGACAA
AACCCATCTAGTCAACTGGGCATAATGACATTTTCTTAAATTAGACTCTATTTTGAATTAAGAGATTTTATT
ATAAACCGTGTGTTTTTGGTTTTTCTAAGTATATAGAAAGCTTGTATAATTCAGATTTATCAATTTCTGATTTA
ATGTAGACTTTGACTTTTTTATTAACCTTTGTATTAAAGCAAGTTATGTTATTTTCTTTTATGCATTTATT
ACTAACATAGCTTTAAATCTTTAAATGTATTGAAGCATTGTGCTGTCTGAAAATAAGGAATTGCTTATAAACAG
CCACTTCTGAATACAATATGTAGCTGATTTAATAAGCTAGTTAGTGAATGGAAAATAAGTGTGGAGTATTAAGAA
TGTTCTTTGGTTGGTAAGGCCTAAGATAGGGTTTCATTTATTTCTATACTTTTTCTGTTTTTTAAACACCTGCAT
ATTTTTATGTAAATCTCTAAATTTAAATATTTTAAGTACATTTATTTTGGTGTTTTATTGTATAAACCTTAG
ACAATCAATCAGTCAGTCTTTACTGACAGGAGCAGCAGCTATCTGTCTTTTGCTGATCTACAAATAAATGAATTG
AGAATTTAGTCCATAGAGGTCCCTGGCTACCAACACATTCTCCTTTGAATTGTTAAATTCAGAACATTCAAAA
TAACTGTTTTGCTACAACCCATGATTATTTTCTGTTGTGTTTATTTAAATTTACTTTCTTTTGAAGTGCCT
TATTTCTGAAAAATCTTAATGAAACAAACGCTTAGAACAAATATAAATATGAGACACTTGGGACTACTAGAGATA
TTTTAGATTTTTATGAAAAAATGTGAGGGGATATTGCTGCTTTAAAAAGGAATAAAGTAATAAAATATATCTC
AGCTATTTTTTTAAAGCAATATAATTCAGCAATTGCTAGAAAAGTAATCATGAGGCTACTGAGTTTGGTGTTC
GTTACTGAGTTTCAAAAATGTTTTGGTGGCATGAGGACAAAATTTTCATTGAAGGTAAGATAAGAATAAAACTAT
GTTTAC

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FIGURE 471A

CGGCGAAGGAGGGCGAGGAGGAAACGGTGCCGGAGCGNGCAGGGCTTGCTGCCGGCAACGGCGNTGCACAGGCTG
CCGGAGCGAGCCTGCCGCGCGCCGCCCTTCCCGCTCTCCTTACTGGGCGAGCTGCGGGGATGGGGCGGCCGCGGG
AGCCCCGAGCGCGCGCAGGAACCGCCGCCGCCGCCGCCCGCTCTCCGTTGCCGCGCGCCTGAGCCGCCGTCGCCG
CCGCGCGCCCTGCCCGGGGGCGGCCCGCCAGCCCCATGGAGGTCTCCCGGAGGAAGGCGCCGCCGCGCCCCCG
CGCCCCGAGCGCCACTGCCCCGTCTCGCCTATCTGCTGGCACTGGCGGCTCCCGGCCGGGGCGCGGACGAGCCC
GTGTGGCGGTTCGGAGCAAGCCATCGGAGCCATCGCGGCGAGCCAGGAGGACGGCGTGTTTGTGGCGAGCGGCAGC
TGCCTGGACCAGCTGGACTACAGCCTGGAGCACAGCCTCTCGCGCCTGTACCGGGACCAAGCGGGCAACTGCACA
GAGCCGGTCTCGCTGGCGCCCCCGCGCGGCCCGGCCCGGGAGCAGCTTCAGCAAGCTGCTGCTGCCCTACCGC
GAGGGGGCGGCCGGCCTCGGGGGGCTGCTGCTCACCGGCTGGACCTTCGACCGGGGCGCTGCGAGGTGCGGCC
CTGGGCAACCTGAGCCGCAACTCCCTGCGCAACGGCACCGAGGTGGTGTGCTGCCACCGCGAGGGCTCGACGGCC
GGCGTGGTGTACCGCGCGGGCGCGGAACAACCGTGGTACCTGGCGGTGGCCGCCACCTACGTGCTGCCGTAGCCG
GAGACGGCGAGCCGCTGCAACCCCGCGGCATCCGACCACGACACGGCCATCGCGCTCAAGGACACGGAGGGGCGC
AGCCTGGCCACGCAGGAGCTGGGGCGCCTCAAGCTGTGCGAGGGCGCGGGCAGCCTGCACTTCGTGGACGCCTTT
CTCTGGAACGGCAGCATCTACTTCCCCTACTACCCCTACAACCTATACGAGCGGCGCTGCCACCGGTGGCCAGC
ATGGCGCGCATCGCGCAGAGCACCGAGGTGCTGTTCCAGGGCCAGGCATCCCTCGACTGCGGCCACGGCCACCCC
GACGGCCGCGCCTGCTCCTCTCCTCCAGCCTAGTGGAGGCCCTGGACGTCTGGGCGGGAGTGTTTCAGCGCGGCC
GCTGGAGAGGGCCAGGAGCGGCGCTCCCCACCACCACGGCGCTCTGCCTCTTCAGAATGAGTGAGATCCAGGCG
CGCGCCAAGAGGGTCAGCTGGGACTTCAAGACGGCCGAGAGCCACTGCAAAGAAGGGGATCAACCTGAAAGAGTC
CAACCAATCGCATCATCTACCTTGATCCATTCCGACCTGACATCCGTTTATGGCACCGTGGAATGAACAGGACT
GTTTTATTCTTGGGGACTGGAGATGGCCAGTTACTTAAGGTTATTCTTGGTGAGAATTTGACTTCAAATTGTCCA
GAGGTTATCTATGAAATTAAAGAAGAGACACCTGTTTTCTACAACTCGTTTCCTGATCCTGTGAAGAATATCTAC
ATTTATCTAACAGCTGGGAAAGAGGTGAGGAGAATTCGTGTTGCAAACCTGCAATAAACATAAAATCCTGTTCCGAG
TGTTTAACAGCCACAGACCCTCACTGCGGTTGGTGCCATTGCTACAAAGGTGCACTTTTCAAGGAGATTGTGTA
CATTAGAGAACTTAGAAAATGGCTGGATATTTCTGCTGGAGCAAAAAGTGCCCTAAAATTCAGATAATTGGA
AGCAGTAAAGAAAAGACTACAGTGACTATGGTGGGAAGCTTCTCTCCAAGACACTCAAAGTGCATGGTGAAGAAT
GTGGACTCTAGCAGGGAGCTCTGCCAGAATAAAAGTCAGCCCAACCGGACCTGCACCTGTAGCATCCCAACCAGA
GCAACCTACAAAGATGTTTTCAGTTGTCAACGTGATGTTCTCCTTCGGTTCTTGGAATTTATCAGACAGATTCAAC
TTTACCAACTGCTCATCATTAATAAAGATGCCAGCATGCGTAGAACTGGCTGCGCGTGGTGTAAGTGCAAGA
AGGTGTATCCACCCCTTCACAGCTTGGCAGCCCTTCTGATTATGAGAGAAACCAGGAACAGTGTCCAGTGGCTGTC
GAGAAGACATCAGGAGGAGGAAGACCCAAGGAGAAACAAGGGGAACAGAACCAACCAGGCTTTACAGGTCTTCTAC
ATTAAGTCCATTGAGCCACAGAAAGTATCGACATTAGGGAAAAGCAACGTGATAGTAACGGGAGCAAACCTTTACC
CGGGCATCGAACATCACAATGATCCTGAAAGGAACCAGTACCTGTGATAAGGATGTGATACAGGTTAGCCATGTG
CTAAATGACACCCACATGAAATTCTCTCTTCCATCAAGCCGGAAGAAATGAAGGATGTGTGTATCCAGTTTGAT
GGTGGGAACCTGCTCTTCTGTGGGATCCTTATCCTACATTGCTCTGCCACATTGTTCCCTTATATTTCTGCTACC
ACCTGGATCAGTGGTGGTCAAAATATAACCATGATGGGCAGAAATTTTGATGTAATTGACAACTTAATCATTCA
CATGAATTAAAAGGAAACATAAATGTCTCTGAATATTGTGTGGCGACTTACTGCGGGTTTTTAGCCCCAGTTTA
AAGAGTTCAAAGTGCGCACGAATGTCACTGTGAAGCTGAGAGTACAAGACACCTACTTGGATTGTGGAACCCCTG
CAGTATCGGGAGGACCCAGATTACGGGGTATCGGGTGGAATCCGAGGTGGACACAGAACTGGAAGTGAAAATT
CAAAAAGAAAATGACAACTTCAACATTTCAAAAAAGACATTGAAATTACTCTCTTCCATGGGGAAAATGGGCAA
TTAAATTGCAGTTTTGAAAATATTACTAGAAATCAAGATCTTACCACCATCCTTTGCAAAATTAAAGGCATCAAG
ACTGCAAGCACCATTGCCAACTCTTCTAAGAAAGTTCGGGTCAAGCTGGGAAACCTGGAGCTCTACGTCGAGCAG
GAGTCAGTTCTTCCACGTGGTATTTTCTGATTGTGCTCCCTGTCTTGCTAGTGATTGTCAATTTTTGCGGCCGTG
GGGTGACCAGGCACAAATCGAAGGAGCTGAGTCGCAACAGAGTCAACAACCTAGAATTGCTGGAAAGCGAGCTC
CGGAAAGAGATACGTGACGGCTTTGCTGAGCTGCAGATGGATAAATTGGATGTGGTTGATAGTTTTGGAAGTGT
CCCTTCTTGACTACAAACATTTTGCTCTGAGAACTTCTTCCCTGAGTCAGGTGGCTTACCCACATCTTCACT
GAAGATATGCATAACAGAGACGCCAACGACAAAGAAAGTAAAGTCTCACAGCTTTGGATGCCCTAATCTGTAATAAA
AGCTTTCTTGTTACTGTCTATCCACACCTTTGAAAAGCAGAAAGAACTTTCTGTGAAGGACAGGTGTCTGTTGCC
TCCTTCTAACCATTGCACTGCAACCAAGCTGGTCTACCTGACCAGCATCCTAGAGGTGCTGACCAGGGACTTG

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FIGURE 471B

ATGGAACAGTGTAGTAACATGCAGCCGAAACTCATGCTGAGACGCACGGAGTCCGTCGTCGAAAAACTCCTCACA
AACTGGATGTCCGTCTGCCTTTCTGGATTCTCCGGGAGACTGTCCGAGAGCCCTTCTATTGCTGGTGACGACT
CTGAACCAGAAAATTAACAAGGGTCCCGTGGATGTAATCACTTGCAAAGCCCTGTACACACTTAATGAAGACTGG
CTGTTGTGGCAGGTTCCGGAATTCAGTACTGTGGCATTAAACGTCGTCCTTTGAAAAATCCCGGAAAACGAGAGT
GCAGATGTCTGTCCGAATATTTCACTCAATGTTCTCGACTGTGACACCATTGGCCAAGCCAAAGAAAAGATTTTC
CAAGCATTCTTAAGCAAAAAATGGCTCTCCTTATGGACTTCAGCTTAATGAAATTGGTCTTGAGCTTCAAATGGGC
ACACGACAGAAAGAACTTCTGGACATCGACAGTTCCCTCCGTGATTCTTGAAGATGGAATCACCAAGCTAAACACC
ATTGGCCACTATGAGATATCAAATGGATCCACTATAAAAGTCTTTAAGAAGATAGCAAATTTTACTTCAGATGTG
GAGTACTCGGATGACCACTGCCATTTGATTTTACCAGATTCCGAAGCATTCCAAGATGTGCAAGGAAAAGAGACAT
CGAGGGAAGCACAAGTTCAAAGTAAAAGAAAATGTATCTGACAAAGCTGCTGTGACCAAGGTGGCAATTCATTCT
GTGCTTGAAAACTTTTTAGAAGCATTGGAGTTTACCCAACAGCAGAGCTCCATTTGCTATAAAATACTTTTTT
GACTTTTTGGACGCCCAGGCTGAAAACAAAAAATCACAGATCCTGACGTCGTACATATTTGGAAAAACAAACAGC
CTTCTCTTCGCTTCTGGGTAAACATCCTGAAGAACCCTCAGTTTGTCTTTGACATTAAGAAGACACCACATATA
GACGGCTGTTTGTGAGTGATTGCCAGGCATTTCATGGATGCATTTTCTCTCACAGAGCAGCAACTAGGGGAAGGAA
GCACCAACTAATAAGCTTCTCTATGCCAAGGATATCCCAACCTACAAAGAAGAAGTAAAATCTTATTACAAAGCA
ATCAGGGATTGCTCCATTGTATCCTCAGAAATGGAAGAATTTTTAACTCAGGAATCTAAGAAACATGAAAAT
GAATTTAATGAAGAAGTGGCCTTGACAGAAATTTACAAATACATCGTAAAATATTTTGATGAGATTCTAAATAAA
CTAGAAAGAGAACGAGGGCTGGAAGAAGCTCAGAAACAACCTCTTGATGTAAAAGTCTTATTTGATGAAAAGAAG
AAATGCAAGTGGATGTAAAGCACTCTGGGGCTGGCTTAATCTGGCAAAGTTCTTCAGACGACTTGGGAGCAAAAT
GGCTGCTTGAGCTACTCTGTGTGCTTAATTTGTTGTTTGCACATAGGTTCCACTTTGGGCACTGTCTTTTAAAGA
GACCAAGGCACATGCACAGCTTTTAGAAAGCATACCAACCCTTGTCCTGTGTGTATACCGTGGGAACCCCTCTG
TAAATAGAGTTGAAGTGGTTGTTGCAAACAGCCTCCTTGTTTACAGAGAATACAAGGCCAGTAAGCGAATGTCAG
TATTGTAACCTACAGTCTCCACTTAAGCACAATGATATAAGTGGTTTTGTTTGAAGAACTACAGCTATGTAGCACTT
GTGCTACACTGCACCTCTGCATTGTAAAGGGATAC TGCCAGTGCTCAAACAAAATGTGAAATGAGTCATTGGA
AACAAGGTGGGGTGTAGGGCAACCTCGAGGATTGTCAGCATTGAAACTTTCCCGAGTAGTTCTTGAAAAGCT
GACCGCAGAATTTGGTAGTGACACTTAGCATTGTGAGTGTGTGTGTGTTTAAACCAAAAACCTAACAGTGTT
GCAACATTGTTGAAGGGCTCGTGTTTTTCACTGGTCATCAACTGCACTCCATCAAACCTCACCTCCATTTCACCA
AGGAGCTCTAAAGTAAGGAGAGTGGGCTTTATTTAAATGAACAGCATTTTAACCAGATACTTTGTCTTAATGTAT
GTTCCTTTTCTTCATCTGTTTTTTTCACTAAATGTATTTGATAGTGGACATGTTGGATATTATACAAAAAATC
ATTAATTCATTTCTGTTCCAAACCTTTGATCAGAAGTCTGTGGAAGAGTAACCTCATTCTATATGAGTGAG
TGCTCCTTGCTTTAGATTTCTGGTGAACCTGTGTTATGAATACTTGTGTGTGATTTAAAAAAGATAC
ATTTTACATTTTCGAATTGCTGTTTACACTGGAGTATTATATATAAATACTATATTTGAGGCCCAAGGCT
GAAAAATATTAGTATACAACCTGGTATCTTAGTCTTACTATGTACTTTTTGAAAGTATTCCTCGCAGGAGAAAGA
ATTTAAATACCCATTTTATTCATGCCTTTCTTTTAAAGAATTCTCTATCCAGTTATACTGTAGTCTTTTAGT
GCTGATTTTTTAATTCCTGAATTTTGTCTGCTCATGACCAGTTTAAATACCAGTGTGTTTTCTTCTATTAAACC
AGAAGAAGTAAACAGCATAATTGGCAACTCTTGAGCTTTCTTGTTGGCAGGCACCTTTTACCCTTGGTGCTCCAA
ATCCCCATCTAGGAAAGAAAATTTTTCAAGTCAAATAACATTGATCACATATTCCTTGAAATCATTTACCAAC
ACTGTATGGAGCATTAGGATTTAAATATGAATTTGTCTTAAAGGCAATTCCTTTTGCTTCTGTATTATCTGGAA
AAGCATGAGAGAGGTGACACCTCAACAACTGATCAGAGAAAAAAGCAGTTACTACCCTGATAGGCACCTTCCC
AATCCTGTTGCTTTTGACCATTTGTCTGTCCAACGGACACACCTCAAACAAACAAACTACCAATAGATGACAGA
TCAGAAATAAGGTGAGAGGTCTGGTCCCCATTGAAGGCTGCTACAGTCTTCAAAGAGGTGAAGGAGTTCATAAGA
GAACAACAGTAGGAAAGTTGAGAGCCAAGGGTAGGAGAGTTGCCCCAAAGACTTCCCCTACTACTTTAGGGTACT
GAAAACCTCAAAGGATCAGCTACAGCTTTATCTAAGTATTTACTAAATGCTACATGAGGGTGTCCCTGTCCAGCTT
TCTGGCACATGAGTCCGTGTGTGGAGAGTTACCTCCTCTTCCAGGGACTGTGCTGTTGGGAACCTTTGGGCAAGTCA
CTTACCTCTTTGTGCTCAATTTCTGTATAATAATATTTCTAAGCTACCTCACTGAGGTGGTATGAAGATTCAT
AATGTATGTAGCGTGTGTGCAATCCTCCAGTGAAAAGCACTATCTAGATCACATTTTGGATCACATTAGCCAAA
TGCAGTAAATGGCCAAATTAGATGTGTGCTGAAGACAATCAGTCACTGGGTCTATATTAAACAGCAACCAGAGCA
ACAAATGGCAAACAATTTCTATTTTCAAGTTTCTTTGCATATTTTTTGGTGCAAACCATTTATAAACTTTTTT

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FIGURE 471C

TTCTAACACTAGTGTCTACAGCAGCATTCAAAAAAATTCTGTTACCTTTTCTGTATTAGGATTTAAAGTCTATTT
CTTATTGTATACCTGATTGAAGCTGTTCTTGGAGATGAATGTTTTAAATGTCTATATCCAAAAAATAACATTTT
GATGTAACCTGTGAAAAAA

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FIGURE 472

RRRRARRKRCRSXQGLLPATAXHRLPERACRAPPFPLSLLGELRGWGGRGSPSARRNRRRRRRPRLRCRAPEPPSP
PRALPGGGPPSPMEVSRRKAPPRPPRPAAPLPLLAYLLALAAPGRGADEPVWRSEQAIGAIAASQEDGVFVASGS
CLDQLDYSLEHSLSRLYRDQAGNCTEPVSLAPPARPRPGSSFSKLLLPYREGAAGLGGLLTGWTFFDRGACEVRP
LGNLSRNSLRNGTEVVVSCHPQGSTAGVVYRAGRNNRWYLAVAATYVLPEPETASRCNPAASDHDTAIALKDTEGR
SLATQELGRLKLCEGAGSLHFVDAFLWNGSIYFPYYPNYTSGAATGWPSMARIAQSTEVLFGQGQASLDCGHGHP
DGRRLLSLSSSLVEALDVWAGVFSAAAGEGQERRSPTTTALCLFRMSEIQARAKRVSWDFKTAESHCKEGDQPERV
QPIASSTLIHSDLTSVYGTVMNRTVFLGTGDGQLLKVILGENLTSNCPEVIYEIKEETPVFYKLVDPVKNIY
IYLTAGKEVRRIRVANCNKHKSCSECLTATDPHCGWCHSLQRCTFQGDCVHSENLENWLDISSGAKKCPKIQIIR
SSKEKTTVTMVGSFSPRHSKCMVKNVDSSRELCQNKSQPNRTCTCSIPTATYKDVSVVNMFSFGSWNLSDRFN
FTNCSSLKECPACVETGCAWCKSARRCIHPFTACDPSDYERNQECPVAVEKTSGGGRPKENKGNRTNQALQVFI
IKSIEPQKVSTLGKSNVIVTGANFTRASNITMILKGTSTCDKDVIQVSHVLNDTHMKFSLPSSRKEMKDVCIQFD
GGNCSSVGSLSYIALPHCSLIFFATTWISGGQNITMMGRNFDVIDNLIISHELKGNINVSEYCVATYCGFLAPSL
KSSKVRTNVTVKLRVQDITYLDCGTLQYREDPRFTGYRVESEVDTELEVKIQKENDNFNISKKDIEITLFHGENGQ
LNCSEFENITRNQDLTTILCKIKGIKTASTIANSSKKVRVKLGNLELYVEQESVPSTWYFLIVLPVLLVIVIFAAP
GVTRHKSKELSRKQSQQELLESELKEIRDGFAELQMDKLDVVDVDFGTVPFLDYKHFAALRTFFPESGGFTHIFT
EDMHNDRDANDKNESLTALDALICNKSFLVTVIHTLEKQKNFSVKDRCLFASFLTIALQTKLVYLTSLILEVLTRDL
MEQCSNMQPKMLLRRTESVVEKLLTNWMSVCLSGFLRETVGEPFYLLVTTLNQKINKGFPVDVITCKALYTLNEDW
LLWQVPEFSTVALNVVFEKIPENESADVCRNISVNVLDCTIGQAKEKIFQAFLSKNGSPYGLQNEIGLELQMG
TRQKELLDIDSSSVILEDGITKLNITIGHYEISNGSTIKVFKKIANFTSDVEYSDDHCHLILPDSEAFQDVQGRH
RGKHFKFKVEMYLTLLSTKVAIHSVLEKLFRSIWLSLNSRAPFAIKYFFDFLDAQAENKKITDPDVVHIWKTNS
LPLRFVWNILKNPQFVFDIKKTPHIDGCLSVIAQAFMDAFSLTEQQLGKEAPTNNKLLYAKDIPTYKEEVKSYYKA
IRDLPLSSSEMEEFLLTQESKKHENEFFNEEVALTEIYKYIVKYFDEILNKLERERGLEEAQQLLHVKVLDFDEKK
KCKWM

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FIGURE 473

TTAGAGACGAGTTTTTTTTTTTTTCTATTACTTTTCCCCCCCCCTAACTAACGGACTATTATTGTTGTTGTTTT
AAATTTAGCTCTTAGGGCTTAGCTATTTGGGTTTTCTTGCGGTGTCCGGCTCCCGTCTCCCTGGCTCCCCGCC
GCCCTGCGGCCCCAGCGCCCTCGCTCTCATCCAGCCCGCGAGGAGTGCGGGCGCCGCGCCGCTTTAAAGCGAG
GCCAGGGAGCGAGGCGGTGACCGGCCGAGATCCGGCCCTCGCCTCCTCCCTCGGTGGCGCTAGGGCTCCCGGCCT
CTCTTCCTCAGTGCGGGCGGAGAAGCGAAAGCGGATCGTCCTCGGTGCGGCCGCTTCTCCGGGACTCGCGCGC
CCCTCCCCGCGCGCCACCCACCCAGTCCGGCTGGACTGCGGCAGCCGCGCGGCTCACCCGGCAGGATGTTTCGC
AGCCGGGCTGGCTCCCTTCTACGCCTCCAACCTCAGCCTCTGGTCGGCCGCTTACTGCTCCTCGGCCGGCCAGG
CGGCTGCTCCTTCCCCTTGGACCCCGCGCCGTCAAAAAGCCCTCCTTCTGCATCGCAGACATTCTGCACGCCGG
CGTGGGGGATCTGGGGGCGGCCCCGGAGGGCCTGGCAGGGGCTCGGCCGCCGCCCTCACCGCGCACTTGGGCTC
GGTTCACCCGCACGCCTCTTTCCAAGCGGCGGCCAGATCCCCGCTTCGACCCACCCAGTGGTGGCGCCCTCCGA
AGTCCCGGCTGGCTTCCCGCAGCGGCTGTCTCCGCTCTCAGCCGCTACCACCACCATCACCCGCAACAACA
GCAGCAGCAACAGCCGAGCAGCAACAGCCTCCGCCTCCGCCCGGGCTGGCGCCCTGCAGCCCCCGGCCTCGGG
GACGCGAGTGGTTCCGAACCCCCACCACAGTGGCTCTGCCCGGGCCCCCTCCAGCAAAGACCTCAAATTTGGAAT
TGACCGCATTTTTATCTGCAGAATTTGACCCAAAAGTCAAAGAAGGCAACACGCTGAGAGATCTCACTTCCCTGCT
AACCGGTGGGCGGCCCCGCCGGGTGCACCTCTCAGGCCTGCAGCCCTCGGCCGGCCAGTCTTCGCATCTCTAGA
TCCCATTAACGAGGCTTCTGCAATCCTGAGTCCCTTAAACTCGAACCCAAGAAATTCAGTTCAGCATCAGTTCCA
AGACACGTTTCCAGGTCCCTATGCTGTGCTCACGAAGGACACCATGCCGAGACGTACAAAAGGAAGCGTTCATG
GTCGCGCGCTGTGTTCTCCAACCTGCAGAGGAAAGGCCTGGAGAAAAGGTTTGAGATTAGAAAGTACGTGACCAA
GCCGGACCGAAAGCAGCTGGCGGCGATGCTGGGCCTCACGGACGCACAGGTGAAGGTGTGGTTCCAGAACCGGCG
GATGAAGTGGCGGCACTCCAAGGAGGCCCAGGCCCAAAGGACAAGGACAAGGAGGCTGGCGAGAAGCCATCAGG
TGGAGCCCCGGCTGCGGATGGCGAGCAGGACGAGAGGAGCCCCAGCCGTTCTGAAGGCGAGGCTGAGAGCGAGAG
CAGCGACTCCGAGTCCCTGGACATGGCCCCCAGCGACACGGAGCGGACTGAGGGGAGTGAGCGTTCTCTGCACCA
AACAACAGTTATTAAGGCCCCGGTCACTGGCGCCCTCATTACCGCCAGCAGTGCTGGGAGTGGTGGGAGCAGCGG
CGGCGGCGGCAATAGTTTTCAGCTTCAGCAGCGCCAGCAGTCTTAGTAGCAGCAGCACCAGTGCGGGTTGCGCCAG
CAGCCTTGGCGGCGGCGGCGCCTCGGAGCTTCTCCCTGCAACACAGCCACAGCCAGCAGCGCTCCCAAAGGCC
CGAGCCAGCCCAAGGCGCGCTTGGCTGCTTAAGACTGTACTAGGGCGGAGGGGATCCGGGCCTTGCGTGCAGCC
TCCCAACCATGGGCTGGGTTTTGTGCTTACTGTATGTTGGCGACTTGGTAGGGCAGGAGACGCAGCGTGGAGCCT
ACCTCCCGACATTACGCTTCGCCCCACGCTGCTCCGACTGGCTGCAGCGGACACTGCCCAAAGCAGAGGGGAGT
CTCAGTGTCTGCTAGCCAGCCGAACACTTCTCTCCGGAAGCAGGCTGGTTCGACTGTGAGGTGTTTGACTAAAC
TGTTTCTCTGACTCGCCCCAGAGGTCGTGGCTCAAAGGCACCTAGGACGCCTTAAATTTGTAATAAAATGTTTA
CTACGGTTAAA

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FIGURE 474

MFAAGLAPFYASNFSLWSAAYCSSAGPGGCSFPLDPAAVKKPSFCIADILHAGVGD LGAAPEGLAGASAAALTAH
LGSVHPHASFQAAARSPLRPTPVVAPSEVPAGFPQRLSPLSAAYHHHPQQQQQQQQPQQQQPPPPPRAGALQPP
ASGTRVVPNPHHSGSAPAPSSKDLKFGIDRILSAEFDPKVKEGNTLRDLTSLTGGRPAGVHLSGLQPSAGQFFA
SLDPINEASAILSP LNSNPRNSVQH QFQDTFPGPYAVLTKDTMPQTYKRKRSWSRAVFSNLQRKGLEKRFEIQKY
VTKPDRKQLAAMLGLTDAQVKVWFQNRMRKWRHSKEAQAQKDKDKEAGEKPSGGAPAADGEQDERSPSRSEGEAE
SESSDSES LDMAPSDTERTEGSESLHQTTVIKAPVTGALITASSAGSGGSSGGGGNSFSFSSASSLSSSSTSAG
CASSLGGGGASELLPATQPTASSAPKSPEPAQGALGCL

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FIGURE 475

GCCCGCCCTCGGCTCCTCCGCCGTG**ATG**CTGTCCCGATCCCGCTGTGTGTCTCGGGCGTTCAGCCGCTCGCTCTC
CGCCTTCCAGAAGGGGAAC TGCCCTCTAGGGAGACGTTCCCTGCCTGGGGTCTCCTTATGCCAGGGACCAGGTTA
CCCTAACAGCAGGAAGGTGTGTCATTAACAACAGTGTCTTCAGTGTTCGCTTTTTCAGAACTACAGCTGTATGCAA
GGATGACTTGGTTACAGTCAAAACCCAGCGTTTGCAGAATCTGTACAGAGGGAGATGTCAGGTGGGAGAAAGC
TGTTGGAGACACAGTTGCAGAAGATGAAGTGGTTTGTGAGATTGAACTGACAAGACATCTGTGCAGGTTCATC
ACCAGCAAATGGCGTGATTGAAGCTCTTTTGGTACCTGATGGGGGAAAAGTCGAAGGAGGCACTCCACTTTTCAC
ACTCAGGAAAACCTGGTGCTGCTCCTGCTAAGGCCAAGCCGGCTGAAGCTCCTGCTGCTGCAGCCCCAAAAGCAGA
ACCTACAGCAGCGGCAGTTCCTCCCCCTGCAGCACCCATACCCACTCAGATGCCACCGGTGCCCTCGCCCTCACA
ACCTCCTTCTGGCAAACCTGTGTCTGCAGTAAACCCACTGTTGCCCCACCACTAGCTGAGCCAGGAGCTGGCAA
AGGTCTGCGTTCAGAACATCGGGAGAAAATGAACAGGATGCGGCAGCGCATTGCTCAGCGTCTGAAGGAGGCCCA
GAATACATGTGCAATGCTGACAACTTTTAATGAGATTGACATGAGTAACATCCAGGAGATGAGGGCTCGGCACAA
AGAGGCTTTTTTGAAGAAACATAACCTCAAACCTAGGCTTCATGTGCGCATTGTGTAAGGCCCTCAGCCTTTGCCTT
GCAGGAACAGCCTGTTGTAATGCAGTGATTGACGACACAACCAAAGAGGTGGTGTATAGGGATTATATTGACAT
CAGTGTGTCAGTGGCCACCCACGGGGTCTGGTGGTTCCAGTCATCAGGAATGTGGAAGCTATGAATTTTGAGA
TATTGAACGGACCATCACTGAACTGGGAGAGAAGGCCCGAAAGAATGAACTTGCCATTGAAGATATGGATGGCGG
TACCTTACCATTAGCAATGGAGGCGTTTTTGGCTCGCTCTTTGGAACACCCATTATCAACCCCCCTCAGTCTGC
CATCCTGGGGATGCATGGCATCTTTGACAGGCCAGTGGCTATAGGAGGCAAGGTAGAGGTGCGGCCCATGATGTA
CGTGGCACTGACCTATGATCACCGGCTGATTGATGGCAGAGAGGCTGTGACTTTCTCCGCAAAATCAAGGCAGC
GGTAGAGGATCCCAGAGTCCTCCTCCTGGATCTT**TAGG**AGGAACCCACACACCCTACAAGTTGATCATGCAGGAA
CTGAAAACAGTCTTCTCCCTGTCCCTCATGGGTCCCGGGTTAGCCTGGTGACAGGCAGACACATGCTGTTGGC
CTCAAGCAAGGAAGCAGAGCACTGTGTAACCAGCAGTCACAGGTCTTTTCTTGGCGTTCTGCCAGGCTCTCCCT
CTCTGCACCTGTCTCATAGCCTCGAATATCTTAATTCCTTAGGCTTAAGAGAGAGAGCCTTAATGGATGCTCATT
CATATTCTGCCTTTCTTCCATCAGCTCTCTGCAAAGATGATTTTGCTTCTCCCTAGTGCTGGTATACTATAGAG
AAACCCCCGGGGACCATGTGATTAAGTTCCCTATCTTTTGAAAGTTTGTCTGCAGAGACTTCTAGGAGGATGCTG
TGCCTCCCAAGCTCAGAGCAGCCTCTGTCTGGCTGTGCACATTCTCCCTTGATTCCACTTGTGTGGAGGGATTG
AACACAGGCAAAGAGGTGCTGCTTTGCTTCTTCAATGGCACCTTCATTCTCCGTTGTCAATTGACTTCAAGATGCC
TCTTCTACCTCTTCCAGGAAGCACAGGCCAGGGGATCTGGGTGTGTGAGTGGGAGGAGAGGGCAGAGGTCCCTG
AGGTCATGCATTGTAATCATCATAGAAGGAGAGGCCAGGCCTGCCCTCACGCTCTCCATCATAGGCTGACACCAA
GAAGACTCGTCTTGGCACAATCTCACACAGCTGGGGCTGTAGCAACCTTTCCAACCCCTTTGCTGGTTGCTGGG
CCTCATTCTAGCACCTTGTTCTTAGAGCAGATTCTAGCACATCATGGCAGTGGGACCAAGCGTGGTCCCGAGGAA
GGGCCAGAGCCTGGTAGAGACTAGGGAAGGGAGGTCTCCTCTAGACTGACTCACATTGCCTTGAGCTTTTCAGTT
AAGTTGCTGTAAGCACCTGGGCTGAGGAGGCAGTTTTTGTTCCTTCTGCGTTATAGCGGGGCCCTGTCTCTTCC
TCTGCAGGACACAGATCTGGAGGACGTGGACTGGGGTAGGAAACCACCCTGAGGGTGTAGTACCTAGTGGTGAA
ATGGATGAGGTCAATTTCTAAGGTGTGTTGCCCGTGGATCTGGGCACAATCATTGGAATTCCTTGAGGCCACTGGG
ATTCATGGCTTTGTATCCAACCTGCATCCAGGCCTGAGGCTGCTGACGTTTGACACCAGGGCCAGTAGAGAGTGCC
CTTTTGTATCTTAAGCCAAGAAGTGAGGCCTGGGGGTGGGGGAGGGGGGAAGGGGTGGGAGCCAATACTGAGTGC
CTGCAGCATCTACTACTCTGTCTTCACTATTCAAGACTTGTAATAAGTATTTAAAGAACTGATTTTAAATGC
AAATTAAAGGCAGATATTCTCAAAAAAAAAAAAAAAAAA

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FIGURE 476

MLSR SRCVSRAFSRSLSAFQKGNCP LGRRSLPGVSLCQGP GYPNSRKVVINNSVFSVRFFRTTAVCKDDLVT VKT
PAFAESVTEGDVRWEKAVGDTVAEDEVVCEIETDKTSVQVPSPANGVIEALLVPDGGKVEGGTPLFTLRKTGAAP
AKAKPAEAPAAAAPKAEPTAAAVPPPAAP IPTQMPVPSPSQPPSGKPVS AVKPTVAPPLAEPGAGKGLRSEHRE
KMNRMQRRIAQRLKEAQNTCAMLTTFNEIDMSNIQEMRARHKEAFLKKHNLKLGFM SAFVKASAFALQE QP VVNA
VIDDTTKEVVYRDYIDISVAVATPRGLVVPVIRNVEAMNFADIERTITELGEKARKNELAIEDMDGGTFTISNGG
VFGSLFGTPIINPPQSAILGMHGIFDRPVAIGGKVEVRPMMYVALTYDHRLIDGREAVTFLRKIKAAVEDPRVLL
LDL

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FIGURE 477

ATGGGGGAGCAGCCGATCTTCACCACCCGAGCGCATGTCTTCCAGATTGACCCCAACACCAAGAAGAACTGGATG
CCTGCGAGCAAGCAGGCGGTACCGTTTCTTACTTCTATGATGTCACAAGGAACAGCTATCGGATCATCAGTGTG
GACGGAGCCAAGGTGATCATAAACAGCACAATCACACCGAATATGACCTTCACCAAAACGTCACAGAAGTTTGGG
CAGTGGGCGGACAGCAGAGCCAACACAGTGTGTTGGTTTGGGGTTTTCTCTGAGCAGCAGCTGACAAAGTTTGCA
GAGAAATTCCAGGAGGTGAAAGAAGCTGCCAAGATAGCCAAAGACAAGACGCAGGAGAAAATCGAGACCTCAAGT
AATCATTCCCAAGAATCTGGGCGTGAAACCCCATCTTCTACTCAGGCATCCAGTGTCAACGGGACGGACGAGGAA
AAGGCCTCTCACGCCGGTCCAGCCAACACACAAGTCTGAGAATGACAAGCTGAAGATTGCCTTGACGCAG
AGCGCAGCCAACGTGAAGAAGTGGGAGATCGAGCTGCAGACCCTTCGGGAGAGCAATGCACGGCTGACCACAGCA
CTGCAGGAGTCGGCAGCCAGTGTGGAGCAGTGGGAAGAGGCAGTTCTCCATCTGCCGTGATGAGAATGACCGGCTC
CGCAACAAGATTGATGAGCTGGAAGAACAATGCAGTGAGATCAACAGAGAGAAGGAGAAGAACACGCAGCTGAAG
AGGAGGATCGAGGAGCTGGAGGCAGAGCTCCGAGAAAAGGAGACAGAGCTGAAAGATCTCCGAAAACAAAGTGAA
ATCATACCTCAGCTCATGTGAGAGTGCGAATATGTCTCTGAGAAGCTAGAGGCGGCAGAGAGAGACAATCAAAAC
CTGGAAGACAAAGTGCGTTCTTAAAGACAGACATTGAGGAGAGCAAATACCGACAGCGCCACCTGAAGGTGGAG
TTGAAGAGCTTCTGAGGTGCTGGACGGGAAGATTGACGACCTGCATGACTTCCGCCGAGGGCTCTCCAAGCTG
GGCACCGATAACTAGGGCTGGCCGAGGCCAGGCCCGCCCGTGAGTCCCAAGCGTGTGTGCGAGACCAGATAGC
TCTAGGACGTTCTTCTGTGTGATTGCTTCTGTAAATGCAGGCGCAGTTTGTGCGTGTTCCTCAAACCAAGTTGTGCC
GTCCACTCACTCCTTTTTCAGAATAGAAATCTCCTCTCGCTTCTTGGCCTTGTGAGGTTGTGGACAACCTGGAAGA
TTCTGACTCAGGAATCCAGAACTAGGTCTACCTTCAACATTTATGCAGTCAGGGCAGGGATGTTTATATCTTTCA
TAAGGGCTGTTGCAACCATATGAACTGAAAAAACACGCATTTTGTAAATCCAAATATTGATATTCTTTACACCAAG
CCATCAGGCTCCTTTTATCAAATAGCATTGAGAGTATTTGAATGTCCACCAGACACCAGCCCCGGGGGGCACAGA
GAGAACAACATTCTCTCTGTCAACATCGAGAGGCTTTAAACAAGTGTGTTAGTGGAAGTCTTCTGAGAGATGGA
AAACAAGCTTCTGGTGGGTGCATTTTCTGGCCCGGAGTTGCCTGCATCCACGCTACTGCCCCCTGCCCCCGCCC
CCCCAGTTTGTACGGTTGCAACAGTGTTCCTTTTCTGGTTTTAATTTCTGAGCAGATGATTGCTGTGGGAACA
GCACACAGTGAGGGTGCTTAGCACAATGTCTGGCACAAAGTAGGTGCTTAATAAATATTTGTTCAATTAACAAAAA

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FIGURE 478

MGEQPIFTTRAHV FQIDPNTKKNWMPASKQAVTVSYFYDVTRNSYRIISVDGAKVIINSTITPNMTFTKTSQKFG
QWADSRANTVFGLGFSSEQQLTKFAEK FQEVKEAAKIAKDKTQEKIETSSNHSQESGRETPSSTQASSVNGTDEE
KASHAGPANTQLKSENDKLKIALTQSAANVKKWEIELQTLRESNARLTTALQESAASVEQWKRQFSICRDENDRL
RNKIDELEEQCSEINREKEKNTQLKRRIEELEAELREKETELKDLRKQSEIIPQLMSECEYVSEKLEAAERDNQN
LEDKVRSLKTDIEESKYRQRHLKVELKSFLEVLDGKIDDLHDFRRLSKLGTDN

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FIGURE 479

CCCCGCACGAAACCGAGTTCTGGAGAACGCCATCAGCTCGCTGCTTAAAATTAAACCACAGGTTCCATTATGGGT
CGACTTGATGGGAAAGTCATCATCCTGACGGCCGCTGCTCAGGGGATTGGCCAAGCAGCTGCCTTAGCTTTTGCA
AGAGAAGGTGCCAAAGTCATAGCCACAGACATTAATGAGTCCAACTTCAGGAAGTGGAAAAGTACCCGGGTATT
CAAACTCGTGTCTTGTATGTCACAAAGAAGAAACAAATTGATCAGTTTGCCAATGAAGTTGAGAGACTTGATGTT
CTCTTTAATGTTGCTGGTTTTGTCCATCATGGAACGTGCTCTGGATTGTGAGGAGAAAGACTGGGACTTCTCGATG
AATCTCAATGTGCGCAGCATGTACCTGATGATCAAGGCATTCTTCTTAAATGCTTGCTCAGAAATCTGGCAAT
ATTATCAACATGTCTTCTGTGGCTTCCAGCGTCAAAGGAGTTGTGAACAGATGTGTGTACAGCACACCAAGGCA
GCCGTGATTGGCCTCACAAAATCTGTGGCTGCAGATTTTCATCCAGCAGGGCATCAGGTGCAACTGTGTGTGCCCA
GGAACAGTTGATACGCCATCTCTACAAGAAAGAATACAAGCCAGAGGAAATCCTGAAGAGGCACGGAATGATTTCT
CTGAAGAGACAAAAGACGGGAAGATTCGCAACTGCAGAAGAAATAGCCATGCTCTGCGTGTATTTGGCTTCTGAT
GAATCTGCTTATGTAAGTGGTAACCTGTCTCATTTGATGGAGGCTGGAGCTTGTGAATTTTAGGATCTCCATGGT
GGGAAGGAAGGCAGGCCCTTCTATCCACAGTGAACCTGGTTACGAAGAAACTCACCAATCATCTCCTTCCTGT
TAATCACATGTTAATGAAAATAAGCTCTTTTAAATGATGTCAGTGTGCAAGAGTCTGATTCTTTAAGTATATT
AATCTCTTTGTAATCTCTTCTGAAATCATTGTAAAGAAATAAAAATATTGAACTCATAAAAAAAAAAAAAAAAAA

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FIGURE 480

MGRLDGKVIILTAAQIGIGQAAALAFAREGAKVIATDINESKLQELEKYPGIQTRVLDVTKKKQIDQFANEVERL
DVL FNVAGFVHHGTVLDCEEKDWF SMNLNVRSMYLMIKAF LPKMLAQKSGNI INMSSVASSVKG VVNRCVYSTT
KAAVIGLTKSVAADFIQQGIRCNCVCPGTVDTPSLQERI QARGNP EEARNDFLKRQKTGRFATAEEIAMLCVYLA
SDESAYVTGNPVIIDGGWSL

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FIGURE 481A

GCCCTGCTTCCCTTGCACCTGCGCCGGGCGGCCATGACTTGTACAGCACCCCGGCCGCTGCGCTGGACAGGTT
CGTGGCCAGAAGGCTGCAGCCGCGGAAGGAGTTCGTAGAGAAGGCGCGGCGCTCTGGGCGCCCTGGCCGCTGC
CCTGAGGGAGCGCGGGGGCCGCTCGGTGCTGCTGCCCCGCGGTGCTGAAAAGTGTCAAGGGAGGCTCCTCGGG
CCGGGGCACAGCTCTCAAGGGTGGCTGTGATTCTGAACCTGTCTCTTCTCGACTGCTTCAAGAGCTATGTGGA
CCAGAGGGCCCCGCTGCAGAGATCCTCAGTGAGATGCGGGCATCGCTGGAATCCTGGTGGCAGAACCAGTCCC
TGGTCTGAGACTCACGTTTCTGAGCAGAGCGTGCCTGGGGCCCTGCAGTTCCGCTGACATCCGTAGATCTTGA
GGACTGGATGGATGTTAGCCTGGTGCCTGCCTTCAATGTCTGGGTGAGGCCGCTCCGCGGTCAAACCCAAGCC
ACAAGTCTACTCTACCCTCCTCAACAGTGGCTGCCAAGGGGGCGAGCATGCGGCCTGCTTACAGAGCTGCGGAG
GAACCTTGTGAACATTGCCCCAGCCAAGTTGAAGAACCTAATCTTGCTGGTGAAGCACTGGTACCACCAGGTGTG
CCTACAGGGGTTGTGGAAGGAGACGCTGCCCCGGTCTATGCCCTGGAATTGCTGACCATCTTCGCTGGGAGCA
GGGCTGTAAGAAGGATGCTTTCAGCCTAGGCGAAGGCCTCCGAAGTGTCTGGGCCTGATCCAACAGCATCAGCA
CCTGTGTGTTTTCTGACTGTCAACTATGGCTTCGAGGACCCTGCAGTTGGGCAGTTCTTGCAGCGGCACGTTAA
GAGACCCAGGCCTGTGATCCTGGACCCAGCTGACCCACATGGGACCTGGGAATGGGGCAGCCTGGCACTGGGA
TTTGCATGCCCAGGAGGCAGCATCCTGCTATGACCACCCATGCTTCTGAGGGGGATGGGGGACCCAGTGACGTC
TTGGAAGGGGCGGGCCTTCCACGTGCTGGATGCTCAGGTTTGGGCCACCCATCCAGCTAGACCCTAACCAGAA
GACCCCTGAAAACAGCAAGAGCCTCAATGCTGTGTACCCAAGAGCAGGGAGCAAACCTCCCTCATGCCAGCTCC
TGGCCCCACTGCGGAGCCAGCATCGTACCCCTCTGTGCCGGGAATGGCCTTGGACCTGTCTCAGATCCCCACCAA
GGAGCTGGACCGCTTCATCCAGGACCACCTGAAGCCGAGCCCCAGTTCCAGGAGCAGGTGAAAAAGGCCATCGA
CATCATCTTGCGCTGCCTCCATGAGAACTGTGTTACAAAGCCTCAAGAGTCAGTAAAGGGGGCTCATTTGGCCG
GGGCACAGACCTAAGGGATGGCTGTGATGTTGAACATCATCTTCTCAACTGCTTCACGGACTACAAGGACCA
GGGGCCCCGCGCGCAGAGATCCTTGATGAGATGCGAGCGCACGTAGAATCCTGGTGGCAGGACCAGGTGCCAG
CCTGAGCCTTCAGTTTCTTGAGCAGAATGTGCCTGAGGCTCTGCAGTTCCAGCTGGTGTCCACAGCCCTGAAGAG
CTGGACGGATGTTAGCCTGCTGCCTGCCTTCGATGCTGTGGGGCAGCTCAGTTCTGGCACCAAACCAAATCCCCA
GGTCTACTCGAGGCTCCTCACCAGTGGCTGCCAGGAGGGCGAGCATAAGGCCTGCTTCGCAGAGCTGCGGAGGAA
CTTCATGAACATTGCCCCGTGTAAGCTGAAGAACCCTGATTCTGCTGGTGAAGCACTGGTACCGCCAGGTTGCGGC
TCAGAACAAAGGAAAAGGACCAGCCCCCTGCCTCTCTGCCCCAGCCTATGCCCTGGAGCTCCTCACCATCTTTGC
CTGGGAGCAGGGCTGCAGGCAGGATTGTTTCAACATGGCCCAAGGCTTCCGGACGGTGCTGGGGCTCGTGCAACA
GCATCAGCAGCTCTGTGTCTACTGGACGGTCAACTATAGCACTGAGGACCCAGCCATGAGAATGCACCTTCTTGG
CCAGCTTCGAAAACCCAGACCCCTGGTCTTGACCCCCGCTGATCCCACCTGGAACGTGGGGCACGGTAGCTGGGA
GCTGTTGGCCCAGGAAGCAGCAGCGCTGGGGATGCAGGCCTGCTTCTGAGTAGAGACGGGACATCTGTGCAGCC
CTGGGATGTGATGCCAGCCCTCCTTTACCAAACCCAGCTGGGGACCTTGACAAGTTTCATCAGTGAATTTCTCCA
GCCCCAACCGCCAGTTCTTGCCCCAGGTGAACAAGGCCGTTGATACCATCTGTTTCAATTTTGAAGGAAAAGTCTT
CCGGAATTTCTCCATCAAAGTGATCAAGGTGGTCAAGGGTGGCTCTTTCAGCCAAAGGCACAGCTCTGCGAGGCCG
CTCAGATGCCGACCTCGTGGTGTTCCTCAGCTGCTTCAGCCAGTTCACTGAGCAGGGCAACAAGCGGGCCGAGAT
CATCTCCGAGATCCGAGCCAGCTGGAGGCATGTCAACAGGAGCGGCAGTTTCGAGGTCAAGTTTGAAGTCTCCAA
ATGGGAGAATCCCCGCGTGCTGAGCTTCTCACTGACATCCCAGACGATGCTGGACCAGAGTGTGGACTTTGATGT
GCTGCCAGCCTTTGACGCCCTAGGCCAGCTGGTCTCTGGCTCCAGGCCAGCTCTCAAGTCTACGTGCACCTCAT
CCACAGCTACAGCAATGCGGGCGAGTACTCCACCTGCTTCACAGAGCTACAACGGGACTTCATCATCTCTCGCCC
TACCAAGCTGAAGAGCCTGATCCGGCTGGTGAAGCACTGGTACCAGCAGTGTACCAAGATCTCCAAGGGGAGAGG
CTCCCTACCCCCACAGCAGGGCTGGAACCTGACTGTGTATGCCTGGGAGCAGGGCGGGAAGGACTCCAGTT
CAACATGGCTGAGGGCTTCCGCACGGTCTTGAGCTGGTCAACCAGTACCGCCAGCTCTGTATCTACTGGACCAT
CAACTACAACGCCAAGGACAAGACTGTTGGAGACTTCCTGAAACAGCAGCTTCAGAAGCCAGGCCTATCATCCT
GGATCCGGCTGACCCGACAGGCAACCTGGGCCACAATGCCCGCTGGGACCTGCTGGCCAAGGAAGCTGCAGCCTG
CACATCTGCCCTGTGCTGCATGGGACGGAATGGCATCCCCATCCAGCCATGGCCAGTGAAGGCTGCTGTGTGAAG
TTGAGAAAAATCAGCGTCTACTGGATGAAGAGAAGATGGACACCAGCCCTCAGCATGAGGAAATTCAGGGTCCC
CTACCAGATGAGAGAGATTGTGTACATGTGTGTGTGAGCACATGTGTGCATGTGTGTGCACACGTGTGCATGTGT
GTGTTTTAGTGAATCTGCTCTCCAGCTCACACACTCCCCTGCCTCCCATGGCTTACACACTAGGATCCAGACTC
CATGGTTTGACACCAGCCTGCGTTTGCAGCTTCTCTGTCACTTCCATGACTCTATCCTCATACCACCAGTGTGC

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FIGURE 481B

TTCCACCCAGCTGAGAATGCCCCCTCCTCCCTGACTCCTCTCTGCCCATGCAAATTAGCTCACATCTTTCCTCC
TGCTGCAATCCATCCCTTCCTCCCATTTGGCCTCTCCTTGCCAAATCTAAATACTTTATATAGGGATGGCAGAGAG
TTCCCATCTCATCTGTCAGCCACAGTCATTTGGTACTGGCTACCTGGAGCCTTATCTTCTGAAGGGTTTTAAAGA
ATGGCCAATTAGCTGAGAAGAATTATCTAATCAATTAGTGATGTCTGCCATGGATGCAGTAGAGGAAAGTGGTGG
TACAAGTGCCATGATTGATTAGCAATGTCTGCACTGGATATGGAAAAAGAAGGTGCTTGCAGGTTTACAGTGTA
TATGTGGGCTATTGAAGAGCCCTCTGAGCTCGGTTGCTAGCAGGAGAGCATGCCCATATTGGCTTACTTTGTCTG
CCACAGACACAGACAGAGGGAGTTGGGACATGCATGCTATGGGGACCCTCTTGTTGGACACCTAATTGGATGCCT
CTTCATGAGAGGCCTCCTTTTCTTCACCTTTTATGCTGCACTCCTCCCCTAGTTTACACATCTTGATGCTGTGGC
TCAGTTTGCCTTCCTGAATTTTTATTGGGTCCCTGTTTTCTCTCCTAACATGCTGAGATTCTGCATCCCCACAGC
CTAAACTGAGCCAGTGGCCAAACAACCGTGCTCAGCCTGTTTCTCTCTGCCCTCTAGAGCAAGGCCACCAGGTC
CATCCAGGAGGCTCTCCTGACCTCAAGTCCAACAACAGTGTCACACTAGTCAAGGTTTCAGCCCAGAAAACAGAA
AGCACTCTAGGAATCTTAGGCAGAAAAGGATTTTATCTAAATCACTGGAAAGGCTGGAGGAGCAGAAGGCAGAGG
CCACCACTGGACTATTGGTTTCAATATTAGACCACGTAGCCGAATCAGAGGCCAGAGAGCAGCCACTGCTACTG
CTAATGCCACCACTACCCCTGCCATCACTGCCCCACATGGACAAAACCTGGAGTCGAGACCTAGGTTAGATTCCCTG
CAACCACAAACATCCATCAGGGATGGCCAGCTGCCAGAGCTGCGGGAAGACGGATCCCACCTCCCTTTCTTAGCA
GAATCTAAATTACAGCCAGACCTCTGGCTGCAGAGGAGTCTGAGACATGTATGATTGAATGGGTGCCAAGTGCCA
GGGGGCGGAGTCCCCAGCAGATGCATCCTGGCCATCTGTTGCGTGGATGAGGGAGTGGGTCTATCTCAGAGGAAG
GAACAGGAAACAAAGAAAGGAAGCCACTGAACATCCCTTCTCTGCTCCACAGGAGTGTCTTAGACAGCCTGACTC
TCCACAAACCACTGTTAAAACCTTACCTGCTAGGAATGCTAGATTGAATGGGATGGGAAGAGCCTTCCCTCATTAT
TGTCATTCTTGGAGAGAGGTGAGCAACCAAGGGAAGCTCCTCTGATTACCTAGAACCTGTCTCTGCCGTCTTT
GGCTCAGCCTACAGAGACTAGAGTAGGTGAAGGGACAGAGGACAGGGCTTCTAATACCTGTGCCATATTGACAGC
CTCCATCCCTGTCCCCCATCTTGGTGCTGAACCAACGCTAAGGGCACCTTCTTAGACTCACCTCATCGATACTGC
CTGGTAATCCAAGCTAGAACTCTCAGGACCCCAAACCTCCACCTCTTGATTGGCCCTGGCTGCTGCCACACACA
TATCCAAGAGCTCAGGGCCAGTTCTGGTGGGCAGCAGAGACCTGCTCTGCCAAGTTGTCCAGCAGCAGAGTGGCC
CTGGCCTGGGCATCACAAGCCAGTGATGCTCCTGGGAAGACCAGGTGGCAGGTGCGAGTTGGGTACCTTCCATT
CCACCACACAGACTCTGGGCCTCCCCGCAAAATGGCTCCAGAATTAGAGTAATTATGAGATGGTGGGAACCAGAG
CAACTCAGGTGCATGATACAAGGAGAGGTTGTCATCTGGGTAGGGCAGAGAGGAGGGCTTGCTCATCTGAACAGG
GGTGATTTTCATTCCAGGCCCTCAGTCTTTGGCAATGGCCACCCTGGTGTTGGCATATTGGCCCCACTGTAACTT
TTGGGGGCTTCCCGGTCTAGCCACACCCTCGGATGGAAAGACTTGACTGCATAAAGATGTCAGTTCTCCCTGAGT
TGATTGATAGGCTTAATGGTCACCCTAAAAACACCACATATGCTTTTCGATGGAACCAGATAAGTTGACGCTAA
AGTTCTTATGGAAAAATACACACGCAATAGCTAGGAAAACACAGGGAAGAAGAGTTCTGAGCAGGGCCTAGTCT
TAGCCAATATTTAAACATACTATGAAGCCTCTGATACTTAAACAGCATGGCGCTGGTACGTAAATAGACCAATGC
AGTTAGGTGGCTCTTTCCAAGACTCTGGGGAAAAAAGTAGTAAAAAGCTAAATGCAATCAATCAGCAATTGAAAG
CTAAGTGAGAGAGCCAGAGGGCCTCCTTGGTGGTAAAAGAGGGTTGCATTTCTTGCAGCCAGAAGGCAGAGAAAG
TGAAGACCAAGTCCAGAAGTGAATCCTAAGAAATGCAGGACTGCAAAGAAATTGGTGTGTGTGTGTGTGTGTGTG
TGTTGTGTGTGTTTAAATTTTTTAAAAAGTTTTTATTCGGAATCCGCG

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FIGURE 482

MDLYSTPAAALDRFVARRLQPRKEFVEKARRALGALAAALRERGGRLGAAAPRVLKTIVKGGSSGRGTALKGGCDS
ELVIFLDCFKSYVDQRARRAEILSEMRALESWWQNPVPGRLRTFPEQSVPGALQFRLTSVDLEDWMDVSLVPAF
NVLGQAGSAVKPKPVYSTLLNSGCQGGHAACFTELRRNFVNIRPAKLKNLILLVKHWYHQVCLQGLWKETLPP
VYALELLTIFAWEQGCKKDAFSLGEGRLTVLGLIQHQHLCVFWTVNYGFEDPAVGQFLQRHVKRPRPVIILDPAD
PTWDLGNGAAWHWDLHAQEAASCYDHPCFLRGMGDPVQSWKGPGLPRAGCSGLGHPIQLDPNQKTPENSKSLNAV
YPRAGSKPPSCPAPGPTAEPASYPSPVPGMALDLSQIPTKELDRFIQDHLKPSPOFQEQVKKAIIDILRCLHENCV
HKASRVSKGGSFGRGTDLRDGCDELIIIFLNCFTDYKDQGPRAEILDEMRAHVESWWQDQVPSLSLQFPEQNVP
EALQFQLVSTALKSWTDVSLLPADFDAVGQLSSGTPNPQVYSRLLTSGCQEGEHKACFAELRRNFMNIRPVKLKN
LILLVKHWYRQVAAQNGKGPAPASLPPAYALELLTIFAWEQGCRQDCFNMAQGFRTVLGLVQQHQQLCVYWTVN
YSTEDPAMRMHLLGQLRKPRPLVLDPADPTWNVGHGSWELLAQEAALGMQACFLSRDGTSVQPDVMPALLYQT
PAGDLDFISEFLQPNRQFLAQVNKAVDITCSFLKENCFRNSPIKVIKVVKGGSSAKGTALRGRSDADLVVFLSC
FSQFTEQGNKRAEIISEIRAQLEACQQRQFEVKFEVSKWENPRVLSFSLTSQTMLDQSVDFDVLPADFALGQLV
SGSRPSSQVYVDLIHSYSNAGEYSTCFTELQRFIIISRP TKLKSILRLVKHWYQQCTKISKGRGSLPPQHGLELL
TVYAWEQGGKDSQFNMAEGFRTVLELVTQYRQLCIYWTINYNKDKTVGDFLKQQLQKPRPIILDPADPTGNLGH
NARWDLAKEAAACTSALCCMGRNGIPIQPWPVKA AV

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FIGURE 483

CACACCCTGCAGGACACCTCCTGGCACAACACCACCTTCTTTGGGGTTTTTCAAGCACAGTGGGGTGACATGTAC
CTGTCTGGCCATCTGTGAGTACCAGTTGGAAGAGATCCAGCGGGTGTTTGAGGGCCCCCTATAAGGAGTACCATGAG
GAAGCCCAGAAGTGGGACCGCTACACTGACCCTGTACCCAGCCCTCGGCCTGGCTCGTGCAATTAACAACCTGGCAT
CGGCGCCACGGCTACACCAGCTCCCTGGAGCTACCCGACAACATCCTCAACTTCGTCAAGAAGCACCCGCTGATG
GAGGAGCAGGTGGGGCCTCGGTGGAGCCGCCCCCTGCTCGTGAAGAAGGGCACCAACTTCACCCACCTGGTGGCC
GACCGGGTTACAGGACTTGATGGAGCCACCTATACAGTGCTGTTTCATTGACACAGGAGACGGCTGGCTGCTCAAG
GCTGTGAGCCTGGGGCCCTGGGTTACCTGATTGAGGAGCTGCAGCTGTTTGACCAGGAGCCCATGAGAAGCCTG
GTGCTATCTCAGAGCAAGAAGCTGCTCTTTGCCGGCTCCCGCTCTCAGCTGGTGCAGCTGCCCGTGGCCGACTGC
ATGAAGTATCGCTCCTGTGCAGACTGTGTCCTCGCCGGGACCCCTATTGCGCCTGGAGCGTCAACACCAGCCGC
TGTGTGGCCGTGGGTGGCCACTCTGGATCTCTACTGATCCAGCATGTGATGACCTCGGACACTTCAGGCATCTGC
AACCTCCGTGGCAGTAAGAAAGTCAGGCCACTCCCAAAAACATCACGGTGGTGGCGGGCACAGACCTGGTGCTG
CCCTGCCACCTCTCCTCCAACCTGGCCCATGCCGCTGGACCTTTGGGGGCCGGGACCTGCCTGCGGAACAGCCC
GGGTCTTTCTCTACGATGCCCGCTCCAGGCCCTGGTTGTGATGGCTGCCAGCCCCGCCATGCCGGGGCCTAC
CACTGCTTTTTCAGAGGAGCAGGGGGCGCGGTGGCTGCTGAAGGCTACCTTGTTGGCTGTCGTGGCAAGCCCCGTCG
GTGACCTTGAGGGCCCGGGCCCCCTGGAAAACCTGGGGCTGGTGTGGCTGGCGGTGGTGGCCCTGGGGGCTGTG
TGCCTGGTGCTGCTGCTGCTGGTGTGCTCATTGCGCCGGCGGCTGCGGGAAGAGCTGGAGAAAGGGGCCAAGGCT
ACTGAGAGGACCTTGGTGTACCCCTGGAGCTGCCAAGGAGCCACCAGTCCCCCTTCCGGCCCTGTCTTGAA
CCAGATGAGAACTTTGGGATCCTGTGCGTTACTACTATTAGATGGCTCCCTTAAGATAGTACCTGGGCATGCC
CGGTGCCAGCCCGGTGGGGGGCCCCCTTCGCCACC TCCAGGCATCCAGGCCAGCCTCTGCCTTCTCCAACCTCGG
CTTACCTGGGGGGTGGGCGGAACCTCAAAATGCCAATGGTTACGTGCGCTTACAACCTAGGAGGGGAGGACCGGGGA
GGGCTCGGGCACCCCTGCCTGAGCTCGCGGATGAACTGAGACGCAAACTGCAGCAACGCCAGCCACTGCCCGAC
TCCAACCCCGAGGAGTCATCAGTATGAGGGGAACCCCCACCGCTCGGCGGGAAGCGTGGGAGGTGTAGCTCCTA
CTTTTGACAGGCACCAGCTACCTCAGGGACATGGCACGGGCACCTGCTCTGTCTGGGACAGATACTGCCAGCA
CCCACCCGGCCATGAGGACCTGCTCTGCTCAGCACGGGCACTGCCACTTGGTGTGGCTCACCAGGGCACCAGCCT
CGCAGAAGGCATCTTCTCCTCTCTGTGAATCACAGACACGCGGGACCCAGCCGCCAAAACTTTTCAAGGCAGA
AGTTTCAAGATGTGTGTTTGTCTGTATTTGCACATGTGTTTGTGTGTGTGTATGTGTGTGTGCACGCGCTGC
GCGCTTGTGGCATAGCCTTCTGTGTTTCTGTCAAGTCTTCCCTTGGCCTGGGTCTCCTGGTGAGTCATTGGAGCT
ATGAAGGGGAAGGGGTGCTATCACTTTGTCTCTCCTACCCCACTGCCCGAGTGTCGGGCAGCGATGTACATAT
GGAGGTGGGGTGGACAGGGTGCTGTGCCCTTCAGAGGGAGTGCAGGGCTTGGGGTGGGCCTAGTCCTGCTCCTA
GGGCTGTGAATGTTTTAGGGTGGGGGGAGGGAGATGGAGCCTCCTGTGTGTTTGGGGGAAGGGTGGGTGGGGC
CTCCCACTTGGCCCCGGGGTTCAGTGGTATTTTATACTTGCCTTCTTCTGTACAGGGCTGGGAAAGGCTGTGTG
AGGGGAGAGAAGGGAGAGGGTGGGCCTGCTGTGGACAATGGCATACTCTCTTCCAGCCCTAGGAGGAGGGCTCCT
AACAGTGTAACCTATTGTGTCCCCGCTATTTATTGTTGTAAATATTTGAGTATTTTATATTGACAATAAAAT
GGAGAAAATGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 484

MYLSAICEYQLEEIQRVFEGPYKEYHEEAQKWDRYTDPVPSRPGSCINNWHRRHGYTSSLELPDNILNFVKKHP
LMEEQVGPRWSRPLLVKKGTFNTHLVADRVGTGLDGATYTVLFDITGDGWLLKAVSLGPWVHLIEELQLFDQEPMR
SLVLSQSKKLLFAGSRSQLVQLPVADCMKYRSCADCVLARDPYCAWSVNTSRCVAVGGHSGSLLIQHVM TSDTSG
ICNLRGSKKVRPTPKNITVVAGTDLVLPCHLSSNLAHARWTFGGRDLP AEQPGSF LYDARLQALVVM AAQPRHAG
AYHCFSEEQGARLAAEGYLVAVVAGPSVTLEARAPLENLGLVWLAVVALGAVCLVLLLLVLSLRRRLREELEKGA
KATERTLVYPLELPKEPTSPPFRPCPEPDEKLWDPVGYYYSDGSLKIVPGHARCQPGGGPPSPPPGIPGQPLPSP
TRLHLGGGRNSNANGYVRLQLGGEDRGGLGHPLPELADELRRKLQQRQPLPDSNFEESV

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FIGURE 485

CAGTGCTGCGGGCTCCGGGCAATGGATGCCCCGGGGCCCTGGCCCAGACCGCCGCCCCGGTCCGGGCAGGAAG
GAGCTGAAGATCGTGATCGTGGGCGACGGCGGCTGCGGCAAGACCTCGCTGCTCATGGTGTACAGCCAGGGCTCC
TTCCCCGAGCACTACGCCCCATCGGTGTTTCGAGAAGTACACGGCCAGCGTGACCGTTGGCAGCAAGGAGGTGACC
CTGAACCTCTACGACACGGCCGGGCAAGAAGACTATGACCGGCTGCGGCCCCGTGTCCTACCAGAACACCCACCTC
GTGCTCATCTGCTATGACGTCATGAATCCCACCAGCTACGACAACGTCTCATCAAGTGGTTCCCTGAGGTACG
CATTTCTGCCGCGGGATCCCCATGGTGCTCATCGGCTGCAAGACAGACCTGAGGAAGGACAAGGAGCAGCCGCGG
AAGCTCCGGGCCGCCAGCTGGAGCCCATCACCTACATGCAGGGCCTGAGCGCCTGCGAACAGATCCGAGCTGCT
CTCTACCTGGAATGTTCCGCCAAGTTTCGGGAGAAATGTGGAGGACGTCTTCCGGGAGGCCGCCAAGGTGGCTCTC
AGCGCTCTGAAGAAGGCGCAACGGCAGAAGAAGCGCCGGCCCTGCCTGCTGCTCTGACCCAGGGCAGACAGACCT
CACGACAGCACTGACAGGGCCCCGGGGGCCAGGTGCCGATTGCACCAGGGAGGCTGCCCCATCCCGACCCTCCAG
CTCATGGTGTCTGGGGCCTGCGGCTAGACTCTTGGAAACATTCTGGAACCTCTCTCCTTTCTGGCTGGGGCTCTGA
CCACAACTCCCCCTCAGGCTGCCCCCTGGGACATGGTGGTGTATGTGGGTGCAGGAGCCAGTGTCTGTTGTGCGGA
CTCGCAAGTGCCCTCATCACAGCCACCCCCACCACGAGTGTCTCCCCAGTGCAGACTCAAGTTATGCTTGAAATG
AAAAAGTCTATCTGGTAGTGGGTAAACGTAGACCTGGCACTGTTCCACGCGGGCGCCCCAAGCCTGCCACTCCTG
TGTCCCTGCCTCCCTGGGCTCCCGAGATAGGCACCACTGTATCCTCCAGCTCCTTCCTTCCTTCCCCAGGAACA
CGGAGGCCACCGAGGGGGCTGGGCCTATCAGGAGGACACAGGCTGCAGCCTGGCACCCACCCCTCCCATCTCCAC
CCCACATGGAAGACTTGTCTCAACTTGGCCACTGTCTTTCAGAGCTGGGCACATGTGCCAGGGGGCAGAAAA
AATGGCTTCTCAGTTGTTAAAAGTATACCCTGGACCACCCATCTGACCATCTCCTTAAGGTTTACCCAAAGCCC
CCAGTGTGAGAGACTTGGGATGGGAAGAAGTCCGCTCCAGTGTGGTCATGAGCAAGTTTTCTGTGGACTGTT
CCCCCACTGCGGCAGGACAGGACTGGCCCACTTAGTCCTCAAGCTCCCAACCTGCTGTCCCTCAAGCCCCGCTT
CTACCAGCCTGTGGAGTTTCAGGAGGCGAGACATCCTGGCCTCCTTTGAGAACTGATGGGATCTACCCCTGTCCA
CGCGGGACAGTTTTCTCAGAACTGGTTCATAGACCACCTGTGTACCAACAGCCAGATACCTAATCCCTGAGCCTC
CTTTGGGAAGGTCTGGGGCCGAGGGTCTGGGAATTTTTTTTTTTTTTTTTTTTTTTGGGACAGAGTCTCATTCTG
TCACTCAGGCTAGAGTGCAGTGGCATGATCTTGGCTCACTGCAAGCTCCACCTCCTGGGTTCAAGCGATTCTCTT
GCCTCAGCCTCCTGAGTAGCTGGGACTACATGCGCACACCACCACGTCCGGCTAATTTTTGTATTTTTTAGTAGAG
ACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACCTCTGACCTCGTGATCCACCCGCCTTAGCCTCCCAAAG
TGCTGGGATTACAGGCGTGAGCCACCGTGCCCGGCCAGGACTTTTAAACAAGCATCCCAGGGGATTCCGGTGC
CCACCAGAAGTCGCAAGCTGCTTGGCTCTGGAGGGCGCCTAGGAGTCGGTGTGCGCTAAGATGGGATAATGGCTT
CAGGCAACTCCCAGCCTTCCCCATATCTCCTGCCTCAGCCCCCTGGCCCAGTGTGGGGCGTCAGCTAAACCTG
AGCTTCCAAGAAGTCAGGTTGCCAAAGGAAGAAGCCTTCTGAGACCCTCCCCAACCCACCCAGGTTCCCAAGGCC
CTGCCGTACCCTGGGGAATCAACCAAGGAGTTCTTGTCTCGAAGAACCCAGGCCTCATGATGGTCTACGGTAG
AGGTCCAACAACCTACAGCCTGTGGGCCACATCTGGCCACAGCCTGATTTGTAAATAAAGTTTTATTGGAACACAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 486

MDAPGALAQTAAPGGRKELKIVIVGDGGCGKTSLLMVYSQGSFPEHYAPSVFEKYTASVTVGSKEVTLNLYDTA
GQEDYDRLRPLSYQNTHLVLICYDVMNPTSVDNVLKWFPEVTHFCRGIPMVLIGCKTDLRKDKEQPRKLRAAQL
EPITYMQGLSACEQIRAALYLECSAKFRENVEDVFREAAKVALSALKKAQRQKKRRPCLLL

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FIGURE 487

GGCACGAGCGCGGCGTTACGGGAATTGTTTCGCTTTAGTGCCGGCGCCATGGGGTCGGAGCTGATCGGGCGCCTA
GCCCCGCGCCTGGGCCTCGCCGAGCCCGACATGCTGAGGAAAGCAGAGGAGTACTTGCGCCTGTCCCGGGTGAAG
TGTGTCGGCCTCTCCGCACGCACCACGGAGACCAGCAGTGCAGTCATGTGCCTGGACCTTGCAGCTTCCTGGATG
AAGTGCCCTTGGACAGGGCTTATTTAATTAAACTTTCTGGTTTGAACAAGGAGACATATCAGAGCTGTCTTAAA
TCTTTTGAGTGTTTACTGGGCCTGAATTCAAATATGGAATAAGAGACCTAGCTGTACAGTTTAGCTGTATAGAA
GCAGTGAACATGGCTTCAAAGATACTAAAAAGCTATGAGTCCAGTCTTCCCCAGACACAGCAAGTGGATCTTGAC
TTATCCAGGCCACTTTTCACTTCTGCTGCACTGCTTTTCAGCATGCAAGATTCTAAAGCTGAAAGTGGATAAAAAAC
AAAATGGTAGCCACATCCGGTGTAATAAAAAAGCTATATTTGATCGACTGTGTAAACAAGTAGAGAAGATTGGACAG
CAGGTCGACAGAGAACCTGGAGATGTAGCTACTCCACCACGGAAGAGAAAGAAGATAGTGGTTGAAGCCCCAGCA
AAGGAAATGGAGAAGGTAGAGGAGATGCCACATAAACACAGAAAGATGAAGATCTGACACAGGATTATGAAGAA
TGGAAAAGAAAAATTTTGGAAAATGCTGCCAGTGCTCAAAAGGCTACAGCAGAGTGAATTTTCAGCTTCCAAACTGG
TATACATTCCAAACTGATAGTACATTGCCATCTCCAGGAAGACTTGACGGCTTTGGGATTTTGTTTAACTTTTA
TAATAAGGATCCTAAGACTGTTGCCTTTAAATAGCAAAGCAGCCTACCTGGAGGCTAAGTCTGGGCAGTGGGCTG
GCCCCTGGTGTGAGCATTAGACCAGCCACAGTGCCTGATTGGTATAGCCTTATGTGCTTTCTACAAAATGGAAT
TGGAGGCCGGGCGCAGTGGCTCACGCCTGTAATCCACGCACTTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGT
CAGGAGCTCGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCAGGTGTG
ATGGTGCATGCCTGTAATCCCAGCTCCTCAGTAGGCTGAGACAGGAGCATCACTTGAACGTGGGAGGCAGAGGTT
GCAGTGAGCCGAGATTGCACCACCGCACTCCAGCCTGGGTGACAGAGCGAGACTTATCTCATAAAATAAAATAGATA
GATACTCCAGCCTGGGTGAACAGAGCGAGACTTATAGATAGATAGATAGATAGATGGATAGATAGATAGATAGATA
GATAGATAGATAAACGGAATTGGAGCCATTTTGCTTTAAGTGAATGGCAGTCCCTTGTCTTATTCAGAATATAAA
ATTCAGTCTGAATGGCATCTTACAGATTTTACTTCAATTTTGTGTACGGTATTTTTTATTTGACTAAATCAATA
TATTGTACAGCCTAAGTTAATAAATGTTATTTATATATGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 488

MGSELIGRLAPRLGLAEPDMLRKAE EYLRLSRVKCVGLSARTTETSSAVMCLDLAASWMKCPLDRAYLIKLSGLN
KETYQSCLKSFECLLGLNSNIGIRDLAVQFSCIEAVNMASKILKSYESSLPQTQQVDLDLSRPLFTSAALLSACK
ILKLKVDKNKMVATSGVKKAI FDR LCKQLEKIGQQVDREPGDVATPPRKRKKIVVEAPAKEMEKVEEMPHKPQKD
EDLTQDYEEWKRKILENAASAQKATAE

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FIGURE 489

ACAAGCAGAAAGTCAATTGTCCGGTCCCACCTTACAACATCAAAAGCTGTGAGCCAGTTAATAGCCGATGCTGGGA
TTGGAGGCTCTCGGTTTCAACATTCGCTTGCAATTACCAATAATTTGCGCAATGGAGATAAGCAAATGAAAAACA
GCAATTTCCAGCAGAGGTGAAGGACCTGACTAAGCGTATAAGGACTGTTTTGATGGCCACAGCTCAGATGAAGG
AGCACGAGAAGGACCCCGAGATGCTGGTGGATCTCCAGTACAGCCTGGCAAACCTCTACGCAAGCACTCCTGAAC
TACGCAGGACCTGGCTGGAAAGTATGGCCAAGATTATGCCAGAAACGGAGATTTATCTGAGGCTGCCATGTGTT
ACATCCATATTGCTGCTCTCATTGCAGAGTATCTGAAAAGAAAGGGTTACTGGAAAGTGGAAAAGATTTGCACAG
CATCCCTGCTCTCGGAGGATACCCACCCCTGTGATAGCAACTCATTACTAACAACCTCCAGTGGAGGAAGCATGT
TCTCTATGGGATGGCCAGCTTTTTTGTAGCATTACACCAACATTAAGGAAGAAGGAGCGATGAAAGAGGATTCTG
GAATGCAAGATACACCATACAATGAGAATATCCTGGTGGAGCAGCTATACATGTGTGTGGAGTTTCTCTGGAAGT
CTGAGCGATATGAACTCATTGCTGATGTCAACAAGCCCATCATTGCTGTCTTTGAGAAAACAACGAGACTTCAAAA
AATTGTCAGATCTCTACTACGACATTCATCGGTCAATCTGAAAGTGGCAGAGGTGGTGAATTCGGAGAAGCGGC
TGTTTGGTCGCTACTATCGTGTGGCATTTTATGGGCAGGGCTTTTTTGAAGAAGAAGAAGGTAAAGAGTATATTT
ATAAAGAGCCTAAGCTGACAGGTCTGTCCGAGATTCCCAAAGATTACTCAAGCTCTATGCAGATAAATTTGGAG
CAGACAATGTGAAGATAATCCAGGATTCCAACAAGGTAAACCCCAAGGATTTGGACCCCAATATGCCTACATCC
AGGTGACCTATGTGACGCCGTTCTTTGAGGAAAAGGAAATCGAAGACCGGAAGTCAGATTTGAAATGCACCACA
ACATCAACCGCTTTGTCTTCGAGACACCCTTCACGCTGTGCGGCAAGAAGCACGGTGGGGTGGCGGAGCAGTGCA
AGCGGCGGACGATCCTGACAACGAGTCACCTGTTCCCTACGTGAAGAAGAGAATACAAGTAATTAGCCAATCGA
GCACAGAAGTGAATCCAATTGAAGTGGCAATTGACGAGATGTCCAAGAAGGTTTCTGAGCTTAATCAGCTTTGCA
CAATGGAAGAAGTGGACATGATCAGACTGCAGCTCAAACCTGCAAGGAAGTGTGACCGTGAAGGTTAATGCTGGGC
CAATGGCCTATGCACGAGCTTTTCTTGAAGAAACCAATGCAAGAAGTACCCTGACAACCAAGTAAAGCTTTTGA
AGGAGATCTTCAGGCAATTTGCAGATGCATGTGGGCAGGCCCTTGACGTGAATGAGCGCCTCATCAAAGAGGACC
AGCTGGAGTACCAGGAAGAACTGAGGTCCACTACAAGGACATGCTCAGCGAACTCTCCACAGTCAATGAGCA
GATTACGGGCAGGGACGACCTGTCAAAGCGCGGAGTGGACCAACCTGCACTCGAGTAATTAGCAAAGCAACTCC
GGCCCTACCCACGGTCTCCATCTCATCTAGTGCTGAAGTCTGAGGGCTCTGCAGCATCAGACCCACCTCTAAGAG
AACTTTCTGAATTTGCAGCTAATCTCGGGGAAGAGAAAGATAGGTTTAATTTATTTGAAGTTTTCATGGTGTAA
TATTTTTGTTTACCTCGCTAGCTTCAGAATTTTGCCAACCTCTGAATTTGCACATTTTGTATAATTTTTTTTTTC
TTTGAGCAGTGTGATCAAGCCAAGTTGAATATTTGCCATGAAATTCAGTGAATGTGTAGCTCAAATGCAAACC
ATAAGTTTGCTGTCAGTTATTGTATGGTCAGTACCCAGTCCTAGTACACATATTTTAAAGGTTAAAGTGAATGT
TTTTGTAACATTTAAGCATATTTAGATGTAAATAAAAGATTGTAAATATACGGTTTTTACCAAATTTAAAAGA
TCCTTTTTAGTTAATACTATGACAGTACTAAAAATATATGAATAACATTTAGATACCATTATATTAATAATTT
GTGTATGTGTACAAAAGCGTTGATAAAATACTAATCTTTAAAGTTTGTGGAGTTCTTTATTTGTAATATATGTGC
TCTTAAAGCAATGGGATGTGAAATTATGAAAGTATTTTATTGTTTCATAGAAATAAAAAACACAGTTACTTTGCA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 490

MKNSNFP AEVKDLTKRIRTVLMATAQMKEHEKDPEMLVDLQYSLANSYASTPELRRTWLESMAKIHARNGDLSEA
AMCYIHIAALIAEYLKRKGYWKVEKICTASLLSEDTHPCDNSNLLTTPSGGSMFSGWPAFLSITPNIKEEGAMK
EDSGMQDTPYNENILVEQLYMCVEFLWKSEYELIADVKNPIIAVFEEKQRDFKKLSLDLYYDIHRSYLKVAEVVNS
EKRLFGRYYRVAFYGGGFFEEEGKEYIYKEPKLTGLSEISQRLCLKLYADKFGADNVKIIQDSNKVNP KDLPKY
AYIQVTYVTPFFEEKEIEDRKSD FEMHHNINRFVFETPFTLSGKKHGGVAEQCKRRTILTSHLFPYVKKRIQVI
SQSSTELNPIEVAIDEMSKKVSELNQLCTMEEVDMIRLQLKLQGSVSVKVNAGPMAYARAFLEETNAKKYPDQV
KLLKEIFRQFADACGQALDVNERLIKEDQLEYQEELRSTTRTCSANSPQS

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FIGURE 491A

CAGTCGCGCGCGGTGCAGTCGGGAGGTGGAGGCACCGGCTGCATTGTTTTCGGGATCGAGGGGTGAGGGCGCTAT
GGCACCCGGCTGCAAACTGAGTTACGCAGCGTGACAAATGGTCAGTCTAACCAACCAAGTAATGAAGGTGATGC
CATCAAAAGTTTTTGTGCGAATTCGTCTCCTGCAGAAAGATCTGGGTCAGCTGATGGAGAGCAGAAGTTATGCTT
ATCTGTGCTGTCCTCCACGAGTCTCCGGCTGCACTCCAACCTGAGCCCAAGACCTTCACGTTTGATCATGTTGC
AGATGTGGATAACCACTCAGGAATCTGTATTTGCAACTGTGGCTAAAAGCATTGTGGAGTCTTGCATGAGCGGTTA
TAATGGTACCATCTTTGCATATGGACAGACTGGCTCAGGGAAGACATTTACTATGATGGGACCATCTGAATCTGA
TAATTTTTCTCATAACCTGAGAGGAGTAATCCACGAAGTTTTGAATATTTGTTTTCTTAATTGATCGTGAAAA
AGAAAAGGCTGGAGCTGGAAAGAGTTTCTTTGTAAGTGTTCTTTATTGAAATCTACAACGAGCAGATATATGA
TCTACTGGACTCTGCATCGGCTGGACTGTACTTAAGGGAGCATATCAAGAAGGGAGTCTTTGTTGTTGGTGC
GGAGCAGGTGGTAACCTCAGCTGCTGAAGCCTATCAGGTGCTGTCTGGAGGATGGAGGAATAGACGTGTGGCATC
AACATCAATGAACAGAGAATCGTCTAGGTCTCATGCCGTCTTTACAATTACAATAGAGTCAATGGAGAAAAGTAA
TGAGATTGTGAATATACGGACCTCCCTACTCAACCTGGTGGATTTAGCAGGATCTGAAAGGCCAAAAGATACCCA
TGCAGAAGGGATGAGATTGAAGGAAGCAGGTAACATAAATCGATCATTGAGCTGCCCTGGGCCAAGTGATTACAGC
ACTTGTCGACGTGGGTAAATGGAAAACAGAGACATGTTTGCTACAGAGACTCCAACTTACCTTCTTACTACGGGA
TTCCCTTGGAGGTAATGCCAAAACAGCCATAATTGCAAATGTTTCATCTCGGATCCAGGTGTTTTGGGGAAACCTT
ATCAACACTTAACTTTGCTCAAAGAGCCAAGCTGATTAAAAACAAGGCAGTAGTAAATGAAGACACCCAAGGAAA
TGTGAGCCAGCTCCAAGCTGAAGTGAAGAGGCTCAAAGAACAAGTGGCGGAGCTTGCTTCAGGACAGACACCACC
AGAAAGCTTCTGACCAGAGACAAAAAGAAGACTAATATATGGAGTATTTCCAGGAAGCAATGTTATTCTTTAA
GAAATCTGAACAGGAAAAAGAGTCTCTGATAGAAAAAGTTACCCAATTAGAAGACCTCACCTCAAAAAGGAAAA
ATTTATTCAATCTAATAAAATGATTGTGAAATTCCGAGAGGATCAAATAATACGCTTGAAAAAGCTCCACAAGGA
ATCCCGGGGAGGTTTTCTGCCTGAGGAGCAGGATCGTTTGCTCTCAGAATTAAGGAATGAGATTCAAACCTCTGCG
AGAACAAATAGAGCACCACCCAGAGTTGCAAAGTATGCTATGGAAAATCATTCCCTCAGGGAGGAGAATAGAAG
ACTGAGATTATTAGAGCCTGTGAAAAGAGCTCAAGAAATGGATGCCCAGACCATTGCAAACTAGAAAAAGCTTT
CTCTGAAATAAGTGGCATGGAGAAAAAGTGACAAAAATCAGCAAGGATTTTCACCTAAAGCTCAGAAAGAGCCATG
TTTGTTTTGCAAACTGAGAAGTTAAAAGCACAACTCCTGCAAATTCAGACAGAGCTGAATAATTCAAAGCAAGA
ATATGAAGAATTCAAAGAAGTTACTAGGAAAAGGCAGCTAGAATTGGAATCAGAGCTTCAGTCTTTGCAAAAAGC
GAACCTTAATCTTGAAAACCTTTTGGAAGCAACAAAAGCCTGCAAGCGGCAAGAAGTTTCTCAGCTGAATAAAAT
TCATGCTGAAACACTTAAGATTATACTACACCAACCAAGGCCTACCAACTTCATTCCCGACCAGTACCAAAATT
AAGCCCTGAAATGGGAAGCTTTGGCTCTCTATACACTCAGAATTCATAGCATATTAGATAATGATATATTAATGA
GCCAGTTCCTCCTGAGATGAATGAACAAGCTTTTGAGGCCATTTCTGAAGAGCTTAGAACAGTGCAGGAACAAAT
GAGTGCTCTTCAAGCCAACTGGATGAAGAAGAGCATAAAAACCTAAAGCTTCAGCAGCATGTTGACAACTGGA
ACATCATTCTACCCAAATGCAGGAGCTTTTCTCATCAGAAAGAATTGATTGGACCAAACAGCAGGAAGAGCTTCT
CTCACAGTTGAATGTCCTTGAAAAGCAGCTTCAAGAGACTCAAATAAAATGACTTTTTGAAAAGTGAGGTACA
TGACCTGCGAGTAGTCTTCATTCTGCTGACAAGGAGCTTTCTTCAGTGAAATTGGAATATAGTTTCAATCAAAC
GAATCAGGAGAAAGAATTCAACAACTTTCTGAAAAGACACATGCATGTACAGCTTCAATTAGATAATCTCAGGTT
AGAAAACGAAAAGCTGCTTGAGAGCAAAGCCTGCCACAGGATTCTATGACAACCTTACAAGAAATAATGAAATT
TGAGATTGACCAACTTTCAAGAAACCTCCAAAACCTCAAAAAAGAAAATGAACTCTGAAATCTGATCTGAATAA
TTTGATGGAGCTTCTTGAGGCAGAAAAAGAACGCAATAACAAATTATCATTACAGTTTTGAAGAAGATAAAGAAAA
CAGTTCTAAAGAAATCTTAAAGTTCTTGAGGCTGTACGTGAGGAGAAACAGAAAGAGACGGCCAAGTGTGAGCA
GCAGATGGCAAAAGTACAGAACTAGAAGAGAGCTTGCTTGCTACTGAAAAAGTGATCAGTTCCCTGGAAAAGTC
TAGAGATTCTGATAAGAAAGTTGTAGCTGACCTCATGAACCAGATCCAGGAGCTAAGAACATCGGTCTGTGAGAA
AACAGAACTATAGACACCCTGAAACAAGAAGTGAAGGACATAAATTGCAAATACAACCTCTGCTTTGGTTGACAG
AGAAGAGAGCAGAGTGTTGATCAAGAAGCAGGAAGTGATATTCTGGATCTGAAAGAAACCTTAGGCTGAGAAT
ACTTCTGAGGACATAGAGAGGGATATGCTCTGTGAGGACCTGGCTCATGCCACTGAGCAGCTGAACATGCTCAC
AGAGGCCCTCAAAAAACACTCGGGGCTGCTGCAGTCTGCCAGGAAGAACTGACCAAGAAGGAAGCCCTGATTCA
GGAACCTCAGCACAAAGCTAAACCAAAAGAAAGAGGAAGTAGAACAGAAGAAGTGAATATAACTTCAAAATGAG
GCAACTAGAACATGTGATGGATTCTGCTGCTGAGGATCCCCAGAGTCCCTAAGACACCACCTCACTTTCAAACACA
TTTGCAAACTCCTGGAAACACAAGAACAAGAGATAGAAGATGGAAGAGCCTCTAAGACTTCTTTGGAACACCT

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FIGURE 491B

TGTAACAAAGCTAAATGAAGACAGAGAAGTCAAAAATGCTGAAATCCTCAGAATGAAGGAGCAGTTGCGTGAAAT
GGAAAACCTACGCCTGGAAAGTCAGCAGTTAATAGAGAAAACTGGCTCCTGCAAGGTCAGCTGGATGATATTAA
AAGACAAAAGGAAAACAGTGATCAGAATCATCCAGATAATCAACAGCTGAAGAATGAACAAGAAGAAAGTATCAA
AGAAAGACTTGCAAAAAGTAAAATAGTTGAAGAAATGCTGAAAATGAAAGCAGACCTAGAAGAAGTCCAAAGTGC
CCTTTACAACAAAGAGATGGAATGCCTTAGAATGACTGATGAAGTCGAACGAACCCAAACTTTGGAGTCTAAAGC
ATTCCAGGAAAAAGAACAACTGAGATCAAAGCTGGAAGAAATGTATGAAGAAAGAGAGAGAACATCCCAGGAGAT
GGAAATGTTAAGGAAGCAGGTGGAGTGTCTTGCTGAGGAAAATGGAAAGTTGGTAGGTCACCAAATTTGCATCA
GAAGATTCAGTACGTAGTGCCTAAAGAAGGAAAATGTCAGGCTTGCTGAGGAGACAGAAAAGTTGCGTGCCGA
AAATGTATTTTTAAAAGAAAAGAAAAGAAGTGAATCTGAGGATTCCGGTCAGCTACCTAGGCATCACCTTGTTT
GAAGATGTTTCTTCTCTTTTACAAGTAAGACCTACTCCTGGCCACTTAGGAGAGCTGAATTTATGGACCTTAATT
ATTAAATGTTTATAAGGTGGTGGTAACCACTCAAGTTTCTGATGAACATTCTGCATCCATATACACCCTGTGAC
AGTCAGCAGTCTGCTATTAAGTGGCCTACTTCAAGGCTTTGAATCAACTTAAGGGAAAACCTTTTGTCTTTGTAA
AAATAAAAGCCTGTAGCTAAGGTTTACAGTGGACATTAGCCAGATCATTTTCTTCTTAGATTATGCCATAATCTC
CTTTGATTCTTATGGAAGTTCTAACAATATATGGTGGTTCCAACACCTGCAGTGAGTTTAAATGACTGACTTAGTA
GCAGGTACAAGAAGCAAACCTTGTTAATATAGATTATTTTTGTATTCTTACTTTAGGTATTTTACTTGAGCATTTT
CCATGACTGTAAATAAGCCATTTTTTAAGATAAAAAAAAAAAAAAAAAAAAA

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FIGURE 492

MAPGCKTELRSVTNGQSNQPSNEGDAIKVFVRIRPPAERSGSADGEQNLCLSVLSSTSLRLHSNPEPKTFTFDHV
ADVDTTQESVFATVAKSIVESCMSGYNGTIFAYGQTGSGKFTTMMGPSESDNFSHNLRGVIPRSFEYLFSLIDRE
KEKAGAGKSFLCKCSFIEIYNEQIYDLLDSASAGLYLREHIKKGVFVVGAVEQVVTSAAEAYQVLSGGWRNRRVA
STSMNRESSRSHAVFTITITESMEKSNEIVNIRTSLLNLVDLAGSERQKDTHAEGMRLKEAGNINRSLSCLGQVIT
ALVDVGNGKQRHVVCYRDSKLTFLLRDSLGGNAKTAIIANVHPGSRFCGETLSTLNFAQRAKLIKNAVVNEDTQG
NVSQQLQAEVKRLKEQLAELASGQTPPESFLTRDKKKTNYMEYFQEAMLFKKSEQEKSLIEKVTQLEDLTLKKE
KFIQSNKMIVKFREDQIIRLEKLHKESRGGFLPEEQDRLLSELRNEIQTLREQIEHHPRVAKYAMENHSLREENR
RLRLLEPVKRAQEMDAQTIKLEKAFSEISGMEKSDKNQQGFSPKAQKEPCLFANTEKLKAQQLLQIQTELNNKQ
EYEEFKELTRKRQLELESELQSLQKANLNLENLLEATKACKRQEVSQLNKIHAETLKIITPTKAYQLHSRPVVK
LSPMGSGFGLYTQNSSILDNDILNEPVPPPEMNEQAFEAISEELRTVQEQMSALQAKLDEEEHKNLKLQQHVDKL
EHHSTQMQLFSSERIDWTKQQEELLSQLNVLEKQLQETQTKNDFLKSEVHDLRVVLHSADKELSSVKLEYSSFK
TNQEKEFNKLSERHMHVQLQLDNLRLENEKLESKACLQDSYDNLQEIMKFEIDQLSRNLQNFKKENETLKSDLN
NLMELLEAEKERNNKLSLQFEEDKENSKEILKVLEAVRQEKQKETAKCEQQMAKVQKLEESLLATEKVISSLEK
SRSDKKVVADLMNQIQELRTSVCEKTETIDTLKQELKDINCKYNSALVDREESRVLIKKQEVLDLKLKETLRLR
ILSEDIERDMLCEDLAHATEQLNMLTEASKKHSGLLQSAQEELTKKEALIQELQHLNQQKKEEVEQKKNEYNFKM
RQLEHVMDSAAEDPQSPKTPPHFQTHLAKLLETQEQEIEDGRASKTSLEHLVTKLNEDREVKNAEILRMKEQLRE
MENLRLESQQLEKNWLLQGQLDDIKRQKENSQDNHDPNQQLKNEQESIKERLAKSKIVEEMLKMKADLEEVQS
ALYNKEMECLRMTDEVERTQTLESKAFQEQELRSKLEEMYEERERTSQEMEMLRKQVECLAENGKLVGHQNLH
QKIQYVVRLLKENVRLAEETEKLRANVFLKEKKRSES

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FIGURE 493

GCCCAGGCCCTGGCTGAGGCGCCGCGGGTCCCTCTCCACCTGCCGGGCGGAGCGCACGGGCCATGGGCTGAG
 CCCCCTGAGCCCCGCCGGGCCATCGGGCGATCGCGAGCGCAACAAGAAGCGGCTGCTGGAGCTGCTGCGGGC
 GCCGGACACAGGCAACGCGCACTGCGCCGACTGCGGGGCGGCAGATCCCGACTGGGCTCTTACAAGCTGGGGAT
 CTTTCATCTGTCTCAACTGCTGCGGCGTCCACCGTAACTTCCCTGACATCAGCAGAGTTAAATCTGTGCGACTTGA
 CTTCTGGGACGACAGTATTGTGGAGTTTATGATCCACAATGGAACCTCCGTGTGAAGGCCAAGTTCGAAGCCAG
 AGTCCCAGCTTTCTACTACATCCCCAGGCCAACGACTGCCTGGTCTTAAAGGAACAATGGATTTCGAGCTAAGTA
 TGAGAGACGGGAATTTATGGCTGATGGGGAAACCATCTCGCTCCAGGTAACCGAGAAGGATTTCCTGTGGAAGCG
 AGGAAGGGACAACCTACAGTCTTCTGAGAAGGAAGTTTGTACTTCTGGCAAGAGAAGGCCTCCTGAAGTACTTCAC
 AAAGGAACAGGGTAAAAGCCCCAAAGCTGTCATCAGCATTAAAGGACTTGAATGCCACCTTCCAGACAGAGAAGAT
 AGGGCACCCCCATGGGCTGCAGATCACCTACAGGAGAGATGGCCACACCAGGAACCTGTTTGTGTATCATGAAAG
 TGGGAAGGAGATAGTGGACTGGTTCAATGCCCTCCGTGCAGCCCGTCTGCAGTACCTAAAAATGGCCTTTCTCTGA
 ACTCCCAGAGTCTGAGCTCGTGCCATTCTCTACCAGGAACTACCTCAAACAAGGCTTCATGGAAAAGACTGGGCC
 AAAGCAGAAAGAACCTTTCAAGAAAAGGTGGTTTCGCCCTGGATTGCCATGAGCGGAGGCTGCTCTATTACAAGAA
 CCCACTGGATGCCTTTCGAGCAGGGCCAGGTTTTTCTTGGGAACAAGGAGCAGGGATATGAAGCCTACGAAGACCT
 GCCCAAGGGCATCCGAGGAAATCGCTGGAAAAGCCGGACTACCATTTGTACCCCAGAGCGGAGATTGTCTCTAC
 TTGCCCCAGTGAGAAGGAACAGCAGGAATGGCTGGAAAGTTTGGGGGTGTCTGTCCAGCCCTTGACGCCCTT
 CAACCGGCTTACTGCATCAACAGAGAGTGGCCGCGAGCAGCAGGTGACACCATTAAGTGAAGAACTGGCTGCCACTG
 AACACCTGGAACCTCTTGTGGGAAGAAGTTTGCACCTCGGCCCTGGCTGCCACCATCAGTGCCCCGAGTCAGC
 AGCCATTCTTGGCAGTGAACCTCTGCCAGGACTGAAAGCTGTGGCTTTATCCATCAGCTCCCTGGGCCTTCCCCGCA
 ACCACCTCGGGGATCTGAGGATCTGGTGCATAGATGAACATCTATCCCTCCTCCCCATACACACCTAGGCTT
 GAAATGCCCTACAGGCCCAGAACTTTCTCACATCTGAAATGGAGGCATTGCAATGAAAAGGCACCCACAGCATCA
 TGCAAGTGGCATCTTGTAAAAAAAAAAAAAAAAAAGTTAATCTGAATCTAACCATGAGGAAATAATCAGACAAATCC
 ACATTAGGGGCATTCTGCTAAACATCTGACCCAGACTCTTCAMAAATGAAGAGTGAAAGATAAAGTAGTCAATGG
 CCGGGCGCAGTGAGATTGCGCCATTGCATTCCAGCCTGGGTGACAGAGCGAGACTCCGTATCAGAAAGAAAAAGA
 GGAACCTGAATGAAATCTCAGATGGCTGAAATGTTAGAGAAACAGAGCACCAGTCCCTGCTCTGTGACTCGTTG
 TTCCTTTCTCTGTCTTCAAGCACACGAGAAATACACTGGATGTTCTCTCTTTGCTTCAATGGAGACCCAAGG
 AGCTGGGAGGTCTCTTAAGAGACTCTCTGATTCTCCGTGGTGGGTGTGATGGCTCATGCCATAATCCCAGCCC
 TTTGGGAAGCTGAGGCAGGAGGATTGAGACCAGGAGTTTCGAGAAGAGCCTGGGCAACATAGTGAGACCCCATCTC
 TACAAAGAAAAAAAAAATTAGCTGGACATGGTAATGAATGCCGTGTAGTCCCAGCTACTCCGGACACTGATGTGAGA
 GGATCACTTGAGCCAGGGAGGTTCATGGCTACAGTGACCCCTCATTGCACCACTTTACTTAGCCTGGGTGACAGAG
 TGAGACCCATATCTCAAAAAAAAAAAAAAAAAATCTATGCATTGTATGGGACTTTCCTTTGGATCCCCCAATCAAAGGAT
 AAGCAATGCGTAAGCCTGTGTCTTCTCTGAAGCTTCTCGACTGCCAGATAGGGAGGTGAGTCTCTCTATCTCC
 TCTGGCTCTGGAAGCACCTTGAAAATGTGCATTTTCAAGGACACTTGCTGGGTGTGTCATTAAAGGCCAGTTTAC
 TTGTCTGCCTCTTTGACCACCTGTGAACTCTGTTGGGTGTACTGTCTAAGTTCTGGGGATGAGGAAATTAATAA
 AGGTACAGTCTTGCCTTCAAAAAAAAAA

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FIGURE 494

MGDRERNKKRLELLRAPDTGNAHCADCGAADPDWASYKLGIFICLNCCGVHRNFPDISRVKSVRLDFWDD SIVE
FMIHNGNLRVKAKFEARVPAFYYPQANDCLVLKEQWIRAKYERREFMADGETISLPGNREGFLWKRGRDNSQFL
RRKFVLLAREGLLKYFTKEQGKSPKAVISIKDLNATFQTEKIGHPHGLQITYRRDGHTRNLFVYHESGKEIVDWF
NALRAARLQYLKMAFPELPESELVPFLTRNYLKQGFMEKTGPKQKEPFKKRWFALDCHERRLLYYKNPLDAFEQG
QVFLGNKEQGYEAYEDLPKGIRGNRWKAGLTIVTPERRFVLTCPSEKEQQEWLESLRGVLSSPLTPLNRLTASTE
SGRSSR

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FIGURE 495

GCCAAGATTCTGGCACGAGGCCGGCGTCCCAAGTGTAGTGGAGGGGGATCCCGACTCCAGTCCGGGGCCTTGGCC
AGCGGAGCCGCGCTATTCGGAAGCGGGAATCCCACTCAGAGCCCCGGGCCTGTAGGGGCGGGGCGTCCCGGGCACC
CGGGATTGGGGCGTCTCCCGTCTGTCACCGGGGACCGGGCGACTCACCCGGAAGGAGAAGCCGTGATCTGGCTAT
ATGGTGGGGCGCGGGCGGTGTCGCTGTGGGGAGCTGGTGTCTTCTCAGATGTTTCTTCCAATGGGCTTTTGGT
GTAGGATGTCGGAGAACCAAGAACAGGAGGAGGTGATTACAGTGCCTGTTCAGGACCCCCGAGTGCAGAATGAGG
GCTCCTGGAACCTTATGTGGATTATAAGATATTCCTCCATACCAACAGCAAAGCCTTTACTGCCAAGACTTCCT
GTGTGCGGCGCCGCTACCGTGAGTTCGTGTGGCTGAGAAAGCAGCTACAGAGAAATGCTGGTTTGGTGCCTGTTT
CTGAACCTTCTGGGAAGTCAACCTTCTTCGGCACCTCAGATGAGTTCATTGAGAAGCGACGACAAGGTCTGCAGC
ACTTCCTTGAAAAGGTCTCTGCAGAGTGTGGTTCTCTGTGCAGACAGCCAGTTGCACCTATTCCTGCAAAGCCAGC
TCTCGGTGCCTGAGATAGAAGCCTGTGTCCAGGGCCGAAGTACCATGACTGTGTCTGATGCCATTCTTCGATATG
CTATGTCAAACCTGTGGCTGGGCCCCAGGAAGAGAGGCAGAGCTCTTCTCACCTGGCTAAAGGAGACCAGCCTAAGA
GTTGCTGCTTTTCTTCCAAGATCGGGTAGGAGGAGCTCTCCCTCACCGCCTCCAGTGAAGAAAAGGACCATTAG
AAGTGTGGGCTCCAGTTGTTGACTCTGAGGTTCTTCTTGGAAAGTCCCACTCTCCACCCCTCTCTCACCAT
TATGCTGTGATTTTGAAGACCCAAAGAGGGAACCTCCACTCTTCAGTCTGTGAGGAGGGCTGTGGGAGGAGATC
ATGCTGTGCCTTTGGACCCTGGTCAGTTAGAAACAGTTTGGAAAAGTGAGCTCTCGGTTCTGCTCTGAGATGGT
CAGAGAAGATGCGGGCCAGGAGACTTACTCAGGTGGGACTGGGCACAGGGCAGGTATGTGGGAGGCTGGGCTGCT
TAGTGTCTTCTAGTCACCTCTGCTTGGGCTGATTGACAGAGGTGAGTCATTACAGCCCCCTTATGCCTCTTCCATG
GGAACAAATACTGTGCAGATGTTTGTAAAGTTAAACATAAGACACAGGGGCTGTTGCTTTTGAACAGAACCCCTATA
TTACTCTCTGGGATCTGAGTTTCTGCAGGTCAATTTGTATGTAGGACCAGGAGTATCTCCTCAGGTGACCAGTTT
TGGGGACCCGTATGTGGCAAATCTAAGCTGCCATATTGAACATCATCCCACTGGGAGTGGTTATGTTGTATCCC
CATCTTGGCTGGCTTCAGTTTTTGTGTAGCCCTAGAGCACTTTGTTTGTGGGAGGCTGGCCTCTTGCTTACCTC
CTTGATGGACAGGGGGATGAATATTTACTTTCCACCTCCTTGCTTTTTCTTTCACTGATACCACTGAATGGAA
CTGGTGTGTGACTCCTGCTGCTGGGGATTTATGTCCCAGACCTTAGCCTGGCTGAGTGGAGCCTGAGACCTGC
ACAACAGCTCATGGTCATGCATGAGAGAGAAGTGGCTGGCCACAGCAGACGGGAACAGTAACAGCCCAGGGCCTT
TATTTTGGGAAAGGCTGTCCGGGGCTGTTACTGTCTCTTCTGTTTATAAAGCAGACATGTGGCCATCTTTCCGC
AGGGTTAGAGTGGGCTCCTTTCTTTTGGAAATCCTTTTCTTCTCCTTTGGTAGCAGCTCCCTGCCTCCAGGGCTT
CCGCCACCAGCGTCTCTGCTGTGTTGCGCAGTGCAGTGGGGTGCAAGGGCTTTGTTTCTGCCTGCCTGAAAGAGA
GGGCTCTGGGGATGGAGATGAGAAACAACACGCTCTCCTTCAGACAATGAGGCATTCTGTCTCCTGCTGCCATT
CTTCATCTCCACTGAGAGCCAGAGCTGGTAGGAGCCGAGTGCCACAGGCATTCTGCATTGCTCTACTCTTAGGTT
TGTGTGTGTGATCCTTCCCCTCCCTGTGCGCCACTCCTCCCTCCTCTGGCTATCCTACCCTGTCTGTGGGCTCTT
TTACTACCAGCCTATGCTGTGGGACTGTGATGGCATTAGTTTCAGAGTGGAGGGCTTTGGCCTGAAATAAAATGC
AAGTATTT

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FIGURE 496

MSENQEQEEVITVRVQDPRVQNEGSWNSYVDYKIFLHTNSKAFTAKTSCVRRRYREFVWLRKQLQRNAGLVPVPE
LPGKSTFFGTSDEFIEKRRQGLQHFLEKVLQSVVLLSDSQLHLFLQSQLSVPEIEACVQGRSTMTVSDAILRYAM
SNCGWAQEERQSSSHLAKGDQPKSCCFLPRSGRRSSPSPPPSEEKDHLEVWAPVVDSEVPSLESPTLPPLSSPLC
CDFGRPKEGTSTLQSVRRVGGDHAVPLDPGQLETVLEK

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FIGURE 497

GGAAGCTCAGCAGTGTCCACTGTGCGCCATTCCCTTGGCCATAGAAAAACAATGTATTTGAATTTTGATGTAAGCATA
GCAAATTGAAGATGAAGATGACACGTTGATTTCTTGTTTGAATTAACCAAGTCCCGAGAAAAAGAAAGTGAATAG
TGTTAGCACGAGGAGGAAGGAAGAAATGAGAGATTAGATTGGATACTCTTTCTGCATCACTGGGTAGATCCAGCAC
TTTAAATGACTGCAACTTGGAAAGATAAATTAGCTTGGTATGAAGGTGAAGCTTACATGTGGCATCACTGGAAGCC
TTTTCTGAAAACCTCTCTGGACATGTCTTGATTTCCAAATAGCACAAAGTTGGACCCTGGGACTACTGCTCCTC
TTGTATTGCGCCACACACGTCTCAAGTCTTCCTGCTCAGATATGGATCTCCTACATTCATGGCGAAGCAGCAGTTT
TGGGAATTTTCGATCGTTTTTCGGAATAATTCTTTATCAAACCAGATGATTCAACTGAGGCACATGAAGGAGATCC
CACAAATGGAAGTGGAGAACAAGTAAACTTCAAATAATGGAGGCGGTTTGGGTAAAAAATGAGAGCTATTTTC
ATGGACAATGAAGAAAAAGTGGGTAAAAAGTACATCAAAGCCCTTTCTGAGGAAAAGGATGAGGAAGATGGAGA
GAATGCCCCACCCATATAGAAACAGTGACCCTGTGATTGGGACCCACACAGAGAAGGTGTCCCTCAAAGCCAGTGA
CTCCATGGATAGTCTCTACAGTGGACAGAGCTCATCAAGTGGCATAACAAGCTGTTTCAGATGGTACAAGTAACCG
GGACAGCTTTTCGACTGGATGACGATGGCCCCCTATTGAGGACCATTCTGTGGCCGTGCCAGAGTGCATACGGATTT
CACGCCAAGTCCCTATGACACTGACTCCCTCAAAA TCAAGAAAGGAGACATCATAGACATTATTTGCAAAACACC
AATGGGGATGTGGACAGGAATGTTGAACAATAAAGTGGGAACTTCAAATTCATTTATGTGGATGTCATCTCAGA
AGAGGAAGCAGCCCCCAAGAAAATAAAGGCAAACCGAAGGAGTAACAGCAAAAAATCCAAGACTCTGCAGGAGTT
CCTAGAGAGGATTTCATCTGCAGGAATACACCTCAACACTTTTGCTCAATGGTTATGAGACTCTAGAAGATTTAAA
AGATATAAAAGAGAGTCACCTCATTGAATTAATAATTGAAAACCCAGATGACAGAAGAAGGTTACTATCAGCTGC
TGAAAACCTTCCTTGAAGAAGAAATTATTCAAGAGCAAGAAAATGAACCTGAGCCCCTATCCTTGAGCTCAGACAT
CTCCTTAAATAAGTCACAGTTAGATGACTGCCCCAAGGGACTCTGGTTGCTATATCTCATCAGGAAATTCAGATAA
TGGCAAAGAGGATCTGGAGTCTGAAAATCTGTCTGACATGGTACATAAGATTATTATCACAGAGCCAAGTGACTG
AACACGCATTCCCAACTATATATCTACAGATGCATTCCATTTTAACTCTTCTTGAGCTAAAACGTCAAATAGGAG
AGGAAGATAAGATAAATATTTGTAAATAAAACCTAAAGTTTAAATGTTTTAATCTGAATAATTGTACATAAAATT
TTGTATCTCTAACATTCCAAATTACTGTCAATAAAATATATATTTATTATTTTAAATGCTATGTGTTAATATTTT
ACTTGCTTGATTAGAAAAGGCAAAATGTAAGACTTTGGTATGTGTGACATATGCTTTATTTGGCTTTATTTTACA
AGTACAGTATCTGCAAAAAACAAAGTAACCTTTTTTCATACCTGCCAGTTTTGAATTTATATATGTTATTGAACA
AATAGTAATAGAGGATTCGCTGTTGAAACAAGTTGTCCAAGCAATGTTATATTCATTTTTTATACTTATTGGGAAA
GTGTGAGTTAATATTGGACACATTTTATCCTGATCCACAGTGGAGTTTTAGTAATTATATTTTGTGATTTCTTC
ATTTTGTTTTCTGGTATAAAAGTAGAGATAATGTGTAGTCACTTCTGATTTAGTGAAACCAATTGTAATAATTGT
GGAAATGTTTTGTCTTTAAGTGTAATAATTTTAAAATTTGACATACCCTAATGTTAATAATAAAAAGAACTATTT
GCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 498

MEIRLDTLSASLGRSSTLND CNLEDKLAWYEGEAYMWHHWKPF PENPLWTC LDFQIAQVGPWDYCSSCIRHTRLK
SSCSDMDLLHSWRSSSF GNFDRFRNNSLSKPDDSTE AHEGDPTNGSGEQSKTSNNGGGLGKKMRAISWTMKKKVG
KKYIKALSEEKDEEDGENAHPYRNSDPVIGTHTEKVSLKASDSMDSLYSGQSSSSGITSCSDGTSNRDSFRLDDD
GPYSGPFCGRARVHTDFTPSPYD TDSLKIKKGDIIIDIICKTPMGMTGMLNNKVGNFKF IYVDVISEEEAAPKKI
KANRRSNSKKS KTLQEFLE R IHLQEY TSTLLNGYETLED LKDIKESH LIELNIENPDDRRRLLSAAENFLEEEI
IQEQENEPEPLSLSSDISLNKSQLDDCPRDSGCYI SSGNSDNGKEDLESENLSDMVHKIIITEPSD

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FIGURE 499

GGGGCAGACGTGGGACGGGAAGGACGGCTGCCGGGACTGGCGCGGGGACACTGGGCCGACGCGTGGAGTAGCG
GGGAGAGCGGGAAGCCTGAGGGGGCGGGGCCGGCGCGAGGCCGTGGGTGCGGCACGAGGATGCCGGCGGCGGGAC
AGCGCCCGTAGGCAGCCCCACGGGCAGGGCGCGCGGGCGGGGCGGGCCAGAGGAGCTCCCGGCAT
GTCGCAAGGGCTCCCGGCCCGCGGCAGCGTCCTGCAGAGGAGCGTCGCGGCGCCCGGGAACCAGCCGCAGCCGCA
GCCGCAGCAGCAGAGCCCTGAGGATGATGACAGGAAGGTCCGAAGGAGAGAAAAAAACCGAGTTGCTGCTCAGAG
AAGTCGGAAGAAGCAGACCCAGAAGGCTGACAAGCTCCATGAGGAATATGAGAGCCTGGAGCAAGAAAACACCAT
GCTGCGGAGAGAGATCGGGAAGCTGACAGAGGAGCTGAAGCACCTGACAGAGGCACTGAAGGAGCACGAGAAGAT
GTGCCCCTGCTGCTCTGCCCTATGAACCTTGTGCCAGTGCTCCCGGCCGGACCCTGTGGCCGGCTGCTTGCC
CCGATTGAAGCCGGGGACACTCCTCTGCCCAGCAAGGAGCCTTGGTCATTTTCATACCTGGGAGGAAGGCTTTTCC
TTCACAATTGTATACAGGGGGCACCTGTGGCCAGGCCTCCTCCTGGGAGCTCCAGGACCAGCCAGCTGTGTTCCC
TGCAGACTGGGCTCAGCCCGA'CATCCAACAGGCGCCAACTCACAGAGCCCTTGTGCAGATCCAGCATGGAGGCC
ACCCTCAGGAGTGACTTCTCATCCACCCTGGCAGCTAGTAGGTTCTGCTGTTATGCAGAGCCATTTCTCTAGAA
TTTGGATAATAAAGATGCTTATTGTCTCTCCCTTCTCCAGTTCTGGGAATTTACAGGCACAATACACTTCCTTTT
CCTGG

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FIGURE 500

MSQGLPAAGSVLQRSVAAPGNQPQPQQQSPEDDDRKVRREKNRVAAQSRKKQTQKADKLHEEYESLEQENT
MLRREIGKLTEELKHLTEALKEHEKMCPLLLCPMNFVPVPPRPDPVAGCLPR

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FIGURE 501

CTAAAGTGGAGCCCAGCGGCGGGTGTGAGAGTCCGTAAGGAGCAGCTTCCAGGATCCTGAGATCCGGAGCAGCCG
GGGTCCGAGCGGCTCCTCAAGAGTTACTGATCTATGAAATGGCAGAGAATGGAAAAAATTGTGACCAGAGACGTG
TAGCAATGAACAAGGAACATCATAATGGAAATTTACAGACCCCTCTTCAGTGAATGAAAAGAAGAGGAGGGAGC
GGGAAGAAAGGCAGAATATTGTCTGTGGAGACAGCCGCTCATTACCTTGCAATTTTTCTCTGGAAATCCTTG
TAATCTTGAAGGAATGGACCTCAAAATTATGGCATCGTCAAAGCATTGTGGTGTCTTTTTTACTGCTGCTTGCTG
TGCTTATAGCTACGTATTATGTTGAAGGAGTGCATCAACAGTATGTGCAACGTATAGAGAAACAGTTTCTTTTGT
ATGCCTACTGGATAGGCTTAGGAATTTTGTCTTCTGTTGGGCTTGGAACAGGGCTGCACACCTTTCTGCTTTATC
TGGGTCCACATATAGCCTCAGTTACATTAGCTGCTTATGAATGCAATTCAGTTAATTTTCCCGAACCACCCTATC
CTGATCAGATTATTTGTCCAGATGAAGAGGGCACTGAAGGAACCATTTCTTTGTGGAGTATCATCTCAAAAGTTA
GGATTGAAGCCTGCATGTGGGGTATCGGTACAGCAATCGGAGAGCTGCCTCCATATTTTCATGGCCAGAGCAGCTC
GCCTCTCAGGTGCTGAACCAGATGATGAAGAGTATCAGGAATTTGAAGAGATGCTGGAACATGCAGAGTCTGCAC
AAGACTTTGCCTCCCGGGCCAACTGGCAGTTCAAAAAGTAGTACAGAAAGTTGGATTTTTTGAATTTTGGCCT
GTGCTTCAATTCCAAATCCTTTATTTGATCTGGCTGGAATAACGTGTGGACACTTTCTGGTACCTTTTTTGACCT
TCTTTGGTGAACCTTAATTGGAAAAGCAATAATAAAATGCATATCCAGAAAATTTTTGTTATAATAACATTCA
GCAAGCACATAGTGGAGCAAAATGGTGGCTTTTATTGGTGTGTCCCCGGCATAGGTCCATCTCTGCAGAAAGCCAT
TTCAGGAGTACCTGGAGGCTCAACGGCAGAAAGCTTCACCACAAAAGCGAAATGGGCACACCACAGGGAGAAAAGT
GGTTGTCTGGATGTTTGAAGTTGGTGTGTGTTTACTTTCATCCTATCTATCATTAACTCCATGG
CACAAAGTTATGCCAAACGAATCCAGCAGCGGTTGAACTCAGAGGAGAAAAGTAAATAGTAGAGAAAGTTTTAA
ACTGCAGAAATTGGAGTGGATGGGTTCTGCCTTAAATGGGAGGACTCCAAGCCGGGAAGGAAAATTCCCTTTTC
CAACCTGTATCAATTTTTTACAACTTTTTCTGAAAGCAGTTTAGTCCATACTTTGCACTGACATACTTTTCCT
TCTGTGCTAAGGTAAGGTATCCACCCTCGATGCAAACCTTGTGTTTTCTTAGGGTGGAATGTGATGTTTCAGC
AGCAAACCTTGCAACAGACTGGCCTTCTGTTTGTACTTTCAAAGGCCACATGATACAATTAGAGAATTCCCAC
CGCACAAAAAAGTTCTAAGTATGTTAAATATGTCAAGCTTTTTAGGCTTGTACAAATGATTGCTTTGTTTC
CTAAGTCATCAAAATGTATATAAATTATCTAGATTGGATAACAGTCTTGCAATGTTTATCATGTTACAATTTAATA
TTCCATCCTGCCCCAACCTTCCCTCTCCCATCCTCAAAAAAGGGCCATTTTATGATGCATTGCACACCCTCTGGGG
AAATTGATCTTTAAATTTTGAAGCAGTATAAGGAAAATCTGGTTGGTGTCTTACAAGTGAGCTGACACCATTTT
TATTCTGTGATTTTGAATGAAGTCTTGAAAAAACTTTATAAAGACATCTTTAATCATTCCAAAATTGTGTCCG
TTTTCTTGAGCGTTTTGATTTTTTACTTTTAGCTTATACCAGCTGAATGGCAGCCTTGCTAATCCACCTACAAC
AAGAAATTTCTTAAGCTTTCTTTTATTTGCATGAGAGAGCCACTACCAAGGCATGTTTGTGTTATGCTGAAACTGGG
CTGCTGCATACTGCTAAATGGCACCTCTGGGATTGGCCTACCTGGGGATTTCTTGGTTTGTGAAAACAGGAGAGG
AGAAATATCTCATACAAGTGAAAGGATACTGGAGAGAGAAATTACCCATTTCTAAAAAAAACCACACTCTGTGC
TATCTGTGTTAATGTTTTCTAGCATGTACTCTGGTTTCAACAGACACAAATTTATATGTTAACCCAGTTTTCTTG
CCGTTCTGTAAGTGTTTTATTCTTAGTGTGATTTTTTCCATTGGGATGTTTTTGATTGAAGTGTTCATTTTGT
TTTGCTGGGAGGAAAATAACAATTTTACTTTTTTCCTAAAAAAA

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FIGURE 502

MAENGKNCQRRVAMNKEHHNGNFTDPSSVNEKKRREREERQNIVLWRQPLITLQYFSLEILVILKEWTSKLWHR
QSIVVSFLLLLAVLIATYYVEGVHQQYVQRIEQFLLYAYWIGLGILSSVGLGTGLHTFLLYLGPFIASVTLAAY
ECNSVNFPEPPYPDQIICPDEEGTEGTISLWSIIISKVRIEACMWGIGTAIGELPPYFMARAARLSGAEPDDEEYQ
EFEEMLEHAESAQDFASRAKLAVQKLVQKVGGFGLACASIPNPLFDLAGITCGHFLVPPFWTFFGATLIGKAIK
MHIQKIFVIITFSKHIVEQMVAFIGAVPGIGPSLQKPFQEYLEAQRQKLHHKSEMGTPOGENWLSWMEKLVVVM
VCYFILSIINSMAQSYAKRIQQRLNSEEKTK

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FIGURE 503

TCCCTGTCTGCGCCTCGCGCGCCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCC
GCCGTCCAGCCGAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCTCTGCGTTACAGGGGTGAGCAC
CCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTGAGGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACA
CACATGTACCTAGAACACACCAGCCACTGTCCCCACCATGATGATGACACAGCCATGGACACACCCCTGCCCAGA
CCTCGTCCTTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCCGTCCCTGGAAC TGCCCAAGCCA
GTCATGCAGCCCTTGCTGCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCCAGCCCAGACAGAGAGTGAG
CCAAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCTACCTTCGGGAATCTGGCTGG
TATTGGGGTTCCATTACGGCCAGCGAGGCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGT
GACAGCACGACCCCCAGCTACCTGTTACGCTGTGAGTAAAACCACTCGTGGCCCCACCAATGTACGCATTGAG
TATGCCGACTCCAGCTTCCGCTCTGGACTCCAAC TGCTTGTCCAGGCCACGCATCCTGGCCTTTCGGGATGTGGTC
AGCCTTGTGCAGCACTATGTGGCCTCCTGCACTGTGATACCCGAAGCGACAGCCCCGATCCTGCTCCCACCCCG
GCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACAC
CTAAAACTGGTGCAGCCCTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCCCTTGTATCAAC
CGTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAG
CTCTGACTGTACGGGGCAATCTGCCACCCCTCACCAGTCGCACCCTGGAGGGGACATCAGCCCCAGCTGGACTT
GGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAA
GAGCAAGGCATGGGAGAGGGGAGGTGTCACACAAC TTGGAGGTAAATGCCCCAGGCCGCATGTGGCTTCATTAT
ACTGAGCCATGTGTCAGAGGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGGGCTGGGCCCAGACCTCCACT
CGCTTGCTGCCCCTGGCCACCTGAACTGTATGGGCACCTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGGTAGG
ACCCCTACTGGCAGCCAGCCTCTGTTTCTGGGAGGATGACATGCAGAGGAACTGAGATCGACAGTGACTAGTGAC
CCCTTGTTGAGGGGTAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTTCTCCTTGGGGTT
GGTGTGAGGGGCGAGCCAACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAGAGACCCCCAACTCTGCCCTGGCT
TCTCTGGTTCTTCCCTGTGGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCTCTGGTA
CTGACCCACCCGTCTGTGAATGTGTCCACTCTCTTCTGCCCCAGCCATATTTGGGGAGGATGGACAAC TACAAT
AGGTAAGAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCCCTCACAGGACAGAGCTGTAT
CTGCATAGAGCTGGTCTCACTGTGGCGCAGGCCCGGGGGGAGTGCCTGTGCTGTCAGGAAGAGGGGGTGTGGT
TTGAGGGCCACCACTGCAGTTCTGCTAGGTCTGCTTCCTGCCAGGAAGGTGCCTGCACATGAGAGGAGAGAAAT
ACACGTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGGTCTTTTCTCTTCCACTGATT
TTTCTGTAATGACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATAAAATGATACCTTTTTCATGT
AAAAAAAAAAAAAAAAAAAA

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FIGURE 504

MVLCVQGPRPLLAVERTGQRPLWAPSLELPKPVMQPLPAGAFLEEV AEGTPAQTESEPKVLDPEEDLLCIAKTF S
YLRESGWYWGSITASEARQHLQKMPEGTF LVRDSTHPSYLF T LSVKTTRGPTNVRIEYADSSFR LDSNCLSRPRI
LAFPDVVSLVQHYVASCTADTRSDSPDPAPT PALMPKEDAPSDPALPAPPPATAVHLKLVQPFVRRSSARSLQH
LCRLVINRLVADVDCLEPLPRRMADYLRQYPFQL

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FIGURE 505

CTGGAGACATTTTTGATTGTCACAAATGATGGGTGTTGTGTTTCTGGCATGGGTAGAGGGATGCTACTAAACATC
CTACCGTGCACAGGATGGCCCTCCACAATGGATTCTGTGGCCCCAAATGTTAATAGTGCCAAAGTTGAGAGACCC
TGGGGTAGAGACGTGTGATGGGAAGGAAAGAAAATTACCTTTAGAGCTGCGCGCCGCGGCGGCGGAAGATGGCTG
CGGCCGAGTTGGCGGACACTCAGCTGATGCTTGGAGTCGGGCTGATCGAAAAGGACACAAATGGAGAAGTTCTGT
GGGTGTGGTGTTATCCTTCCACGACAGCCACATTAAGGAACCTGCTGCTGAGAAAATGCTGCCTTACAGATGAAA
ACAAACTTCTCCATCCCTTTGTCTTTGGTCAGTACAGAAGAACATGGTTTTATATCACAATAATTGAAGTTCCAG
ATTCTTCCATTTTGAAAAAGGTGACTCATTTTTCTATTGTCTGACCGCCAAAGATTTTAACCCAGAGAAGTATG
CTGCCTTCACTAGGATATTGTGTAGAATGTACCTGAAACATGGGAGCCAGTTAAAATGATGGAGAGTTATATTG
CAGTTCTCAAAAGGGGATATGCCAGAGTGAAGAAAACGGCTCTTTCCTTAGTAAGGATTTTGATGCCCGAAAGG
CCTACCCGGCTGGCTCCATCAAAGACATTGTATCTCAGTTTGAATGGAACTGTTATCTTACACACAGCACTGA
TGCTAAAGAAAAGAATTGTGGTGTATCACCCCAAGATAGAAGCGGTCCAGGAGTTCACCAGGACTCTGCCTGCC
TGGTGTGGCACCACAGGACTGGACCATCCTTCACTCTTACGTGCACCTCAACGCCGATGAGCTGGAAGCCCTGC
AGATGTGCACAGGTTACGTGCTGGATTTGTAGACTTGGAGGTGAGCAACAGACCAGACCTCTATGATGTGTTTG
TGAATCTGGCAGAGAGTGAGATTACCATTGCTCCCTTGCAAAAGAGGCCATGGCAATGGGCAAACCTGCACAAAG
AAATGGGTCAGCTAATTGTTTCAGTCTGCAGAAGATCCAGAGAAATCAGAGAGCCACGTTATACAGGATATTGCTC
TAAAAACAAGAGAAATCTTTACCAACCTAGCACCATTTTCAGAAGTTTCGGCTGATGGAGAAAAGAGAGTCCTTA
ATTTGGAGGCGCTAAAGCAAAAACGATTTCCACCAGCAACAGAAAACCTTCTTTATCATCTAGCAGCAGCCGAAC
AAAATGCTGAAAATCTGACTGTGTGACAGAACCGTATCACTGATGACTGATAGAAAGCCCTCTTTACTCTGATTA
CCCCTCACTACATGAAGTCCTGAAAATAACAGAGAACTGTTATATCTTTTTAATGATTATTGCAAGTATTG
AGATTTGACCTGAAAAACAATGAAACACATGAACACACTTCCGATTTTCTCCTCGCTGATTAGCTTCTGCCTGC
TGTCAGTGCTGGACGAAGTGCTATAACTACTTTATGTAACATTACAGAACAGCTAGAGGTCTGGGGTAAGAGAA
AAAAAGCACATCACAAACAAATGTGAAAGCCTTCATTATTACACGTTCCAGTTTGTCTCGCTGTGTAGGCATAAGC
TAATGGTTTTATTTTCAGAAAGCTGCCTGAAACGTTGCTTGTATTCTTCTAGGAAGAACTTTAATTCCTCCTGAG
GAACCTCTACTTTCTGAGCCAAACTGCTAATTTTCTGCGGAAGTGTCTAGAAGATCATTCAAGAGACCTGCAAGT
GCACTTTCTCGTAAAAGTT

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FIGURE 506

MAAAELADTQLMLGVGLIEKDTNGEVLWVWCYPSTTATLRNLLLRKCCLTDENKLLHPFVFGQYRRTWFIITIE
VPDSSILKKVTHFSIVLTAKDFNPEKYAAFTRILCRMYLKHGSPVKMMESYIAVLTKGICQSEENGSLSKDFDA
RKAYPAGSIKDIVSQFGMETVILHTALMLKKRIVVYHPKIEAVQEFTRTLPALVWHRQDWTILHSYVHLNADELE
ALQMCTGYVAGFVDLEVSNRPDLYDVFNLAESEITIAPLAKEAMAMGKLHKEMGQLIVQSAEDPEKSESHVIQD
IALKTREIFTNLAPFSEVSADGEKRVLNLEALKQKRFPPTENFLYHLAAAEQNAENLTV